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ITEM 7:* PROGRAMME MATTERS, INCLUDING THE IMPLEMENTATION OF THE PLAN OF ACTION TO COMBAT DESERTIFICATION

PROPOSED PROGRAMME OF FUND ACTIVITIES FOR THE BIENNIUM 1994-1995 (WITH INDICATIVE COSTS)

Report of the Executive Director

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INTRODUCTION

1. This is the first proposed programme of Fund activities of UNEP since the Rio de Janeiro United Nations Conference on Environment and Development (UNCED), and, in particular, since it adopted the Agenda 21, the Rio Declaration on Environment and Development and the Non-legally Binding Authoritative Statement of Principles for a Global Consensus on the Management, Conservation and Sustainable Development of All Types of Forests, which were endorsed by the United Nations General Assembly in resolution 47/190. Agenda 21 generally, but in particular chapter 38, reinforced the mandate of UNEP and its Governing Council to coordinate and catalyse environmental activities. In order to respond as fully as possible to the priorities set out for UNEP and other members of the United Nations system for the years 1994-1995, the Executive Director has restructured the UNEP programme into 12 subprogrammes, four of them new, to facilitate cross-referencing with Agenda 21 and to give a clearer overview of UNEP's integrated work programme during formulation, development, implementation and reporting. These subprogrammes also correspond to those under programme 16 (Environment) of the revised United Nations medium-term plan for the period 1992-1997 (A/47/6/Rev.1).

2. A number of Agenda 21 chapters and programmes are expressly referred to in section I ("Programme strategy of UNEP") of each subprogramme. In the section describing programme elements (section II) the Agenda 21 priorities mentioned in section I C are addressed in the activities set out.

3. The subprogrammes reflect the consensus of the international community at UNCED on both the sectoral and cross-cutting areas as they relate to environment. Consequently, the structure of the corresponding document submitted to the Council at its sixteenth session (UNEP/GC.16/15) and the original contribution to the United Nations medium-term plan 1992-1997 have been revised in the present document.

4. The proposed programme of Fund activities is based on figures set out by the Governing Council in 1991 in its decision 16/44. In paragraph 17 of that decision, the Executive Director was requested to propose a core programme of 160 million United States dollars and a supplementary programme of $40 million. There were expectations then that a larger programme might have been developed to implement the relevant portions of Agenda 21, not only by UNEP but also by the United Nations system. However, the conclusions of UNCED in June 1992, and, subsequently, at the forth-seventh session of the General Assembly did not indicate or produce new and additional financial resources.

5. It will be recalled that the implementation of Agenda 21 is primarily the responsibility of Governments with the assistance of the United Nations system and other organizations and bodies. This vital role of the United Nations will be hampered by lack of financial resources. The limitation of financial resources has been a matter of serious concern not only to UNEP but the United Nations system as a whole. The United Nations system does not see itself fulfilling additional responsibilities arising from UNCED without corresponding additional financial resources. Thus, in the final analysis financial resources will ultimately determine how much of Agenda 21 will be implemented.

6. In presenting the proposed programme of Fund activities, the Executive Director had to take into account that the minimum core programme of $160 million envisaged in Council decision 16/44 may not be covered by the resources available, and on the basis of the projection of those resources in 1994-1995, the core programme has been divided into two: a core one (C1) programme of some $130 million, and core 2 (C2) of some $30 million. This division represents 81 per cent and 19 per cent respectively of each subprogramme. The supplementary programme (S) totals $40 million as requested in decision 16/44. The secretariat hopes that, despite constraints, the total minimum core programmes envisaged in decision 16/44 will in fact be realized, and to this end urges Governments to make every effort to contribute at a higher level to the Environment Fund. The total proposed apportionment of the above-mentioned amounts is set out at the end of the present introduction.

7. Broadly within each subprogramme a major effort has been made to spell out precisely the anticipated activities and outputs and their interlinkages. Also indicated are potential collaborators within the United Nations system and outside it, sometimes with funding indicated as provided by the potential partner or without funding to stress the interest of the partner to cooperate with UNEP. In this respect, it should be noted that several agencies and organizations are still preparing their own programme budgets, and their budgetary proposals are not yet ready. Consequently their budgetary contributions are for the moment included only in a few cases.

8. Some further explanation is necessary to understand the "Activities" sections in the document. In each of the programme elements, a brief description of the particular activity is given, followed by an indication of outputs expected during the biennium. Below this, three columns appear. The first column indicates the financial support set aside from the subprogramme itself. The second column entitled "Interlinkages with, and inputs from, other subprogrammes" lists the subprogrammes that interrelate in the realization of the activity generally, or specifically. If the interrelation is staff consultation and for intellectual support, an entry of "in kind" has been made, and this is the main way the biennium programme is expected to evolve during the implementation stage. Where a direct financial transfer is expected from one subprogramme to another, the amounts and the source have been indicated. For example, for Activity 11.1.4, under subprogramme 11, the entire sum allocated to it will be managed under subprogramme 7 and those figures are entered in the interlinkage column under activity 7.1.6. In many instances, cash transfers will be made from one subprogramme to another to lend support to activities of mutual interest. The document indicates these cases by specifying the subprogramme in the interlinkage column of the activity concerned but without specifying the nature or amount of its input to that activity, which will be determined during the implementation phase. In other cases, cooperation between budget-lines will be translated into multiline projects in which several interested parties will be involved. Those with primary interest and most contributions will take the lead. This kind of cooperation is indicated by letters "ML" against the amount of the input from the interlinking subprogramme, wherever applicable.

9. At the end of the description of each programme element, there is an overview of the total financial resources proposed for the core 1, 2 and supplementary programmes, broken down by activity. Similarly, for those subprogrammes with more than one programme element, the final part of the "programme elements" section consists of a table showing the total proposed resource allocation for that subprogramme, broken down by programme element.

10. In reviewing this document, one will notice the linkages between one subprogramme and the other. For example, Earthwatch contains not only assessment but also management and support activities, and the reverse is true in the management and support sections. No component of the programme therefore stands on its own, and all call for close cooperation. For example, it is anticipated that, as a whole, the subprogrammes will contribute a total of $12.8 million to training. Similarly, it should be appreciated that all subprogrammes, not only subprogramme 11 (capacity-building), contribute to capacity-building efforts. Thus, education, training and other forms of assistance appear in all specialized programme elements, and generally in subprogramme 11. Likewise, activities at the regional level are included throughout the programme and are not only in subprogramme 12, which has the effect of reinforcing the other subprogrammes and programme elements.

12. This document has been developed in consultation with our partners in the United Nations system, and IUCN. Our partners made valuable contributions orally and in writing, which have, by and large, been reflected in the document. The last column in each programme element shows potential collaborators, and in section III under each subprogramme describes briefly each organization or agency's activities carried out with its own financial resources, the text being provided by the partner concerned.

Table

PROPOSED PROGRAMME OF FUND ACTIVITIES FOR THE BIENNIUM 1994-1995: PROPOSED APPORTIONMENTS

(Thousands of United States dollars)

	Subprogrammes/programme elements*	Core 1	Core 2	Supplementary
1.	PROTECTION OF THE ATMOSPHERE	7,586	1,334	1,880
2.	ENVIRONMENTAL MANAGEMENT OF FRESHWATER RESOURCES	6,850	1,650	2,200
3.	ENVIRONMENTAL MANAGEMENT OF TERRESTRIAL ECOSYSTEMS AND THEIR RESOURCES	20,104	4,306	5,100
	3.1 Soils, agricultural lands and agrochemicals	2,210	510	680
	3.2 Arid lands and desertification	10,079	1,946	1,980
	3.3 Forests and other ecosystems	2,750	630	840
	3.4 Biological diversity	3,375	830	1,080
	3.5 Microbial resources and related biotechnologies	1,300	300	400
	3.6 Lithosphere	390	90	120
4.	ENVIRONMENTAL MANAGEMENT OF OCEANS AND COASTAL AREAS MANAGEMENT	9,820	2,650	3,100
	4.1 Regional marine environments	9,670	0	2,600
	4.2 The global marine environment	150	2,050	300
	4.3 Living marine resources	0	600	200
5.	ENVIRONMENTAL HEALTH, SETTLEMENTS AND HUMAN WELFARE	3,250	750	1,000
	5.1 Environmental aspects of human settlements planning and management	1,010	230	310
	5.2 Community preparedness for natural and man-made environmental disasters	160	40	50
	5.3 Hazards of pollution	1,040	240	320
	5.4 Environmental aspects of human health	1,040	240	320
6.	ENVIRONMENTAL ECONOMICS, ACCOUNTING AND TOOLS	5,900	1,520	2,400
7.	ENVIRONMENTAL LAW, INSTITUTIONS AND POLICIES	8,150	2,100	2,800
8.	TOXIC CHEMICALS AND WASTE MANAGEMENT	3,200	750	1,000
9.	INDUSTRY, ENERGY AND THE ENVIRONMENT	9,490	2,190	2,920
	9.1 Energy and environment	1,560	360	480
	9.2 Industry and environment	5,850	1,350	1,800
	9.3 Transportation and environment	1,040	240	320
	9.4 Tourism and environment	650	150	200
	9.5 Working environment	390	90	120
10.	EARTHWATCH DATA, INFORMATION, ASSESSMENT, AND EARLY WARNING	27,000	6,000	8,000
	10.1 Earthwatch coordination and early warning	1,010	240	320
	10.2 Global Environmental Monitoring System (GEMS)	6,640	1,590	2,120
	10.3 INFOTERRA	2,710	660	880
	10.4 International Register of Potentially Toxic Chemicals (IRPTC)	6,880	1,650	2,200
	10.5 Global Resource Information Database (GRID)	4,920	1,170	1,560
	10.6 State of the environment	2,840	690	920
	10.7 United Nations Centre for Urgent Environment Assistance	2,000	0	0
11.	CAPACITY BUILDING FOR ENVIRONMENTALLY SOUND AND SUSTAINABLE DEVELOPMENT	15,600	3,600	4,800
	11.1 Environmental education and training	8,900	2,300	2,000
	11.2 Environmental awareness: public information	6,700	1,300	2,800
12.	SUPPORT TO AND COOPERATION FOR ENVIRONMENTAL ACTION (GLOBAL AND REGIONAL COOPERATION)	13,050	3,150	4,800
		130,000	30,000	40,000

* Listed only where the subprogramme contains more than one programme element.

SUBPROGRAMME 1. PROTECTION OF THE ATMOSPHERE

I. PROGRAMME STRATEGY OF UNEP

A. Strategy

1. The strategy is to identify the impacts of climate variability and change on people and the environment, estimate the social and economic implications of such impacts and enumerate the range of response options for adapting to or mitigating the adverse effects; to increase awareness of the implications of climate variability and change through education, training and public awareness programmes. Further the policy aims at integrating the scientific questions related to climate variability and change with the socio-economic issues including disasters that may arise from climate variability and change; assist developing countries to make inventories of their sources and sinks of greenhouse gases, assess potential climate change impacts and estimate the costs associated with reduction of greenhouse-gas emissions; as well as carry out regional assessment of atmospheric pollution using data collected during background air pollution monitoring. These will require intra-programme cooperation and coordination to reflect the cross-sectoral nature of the issues.

B. Legislative authority

2. The legislative authority for the subprogramme derives from the revised United Nations medium-term plan 1992-1997 (A/47/6/Rev.1), programme 16 (Environment); General Assembly resolutions 42/182, 43/53, 44/206, 44/207, 44/228 and 44/229; Governing Council decisions 14/20, 14/28, 15/35, 15/36, 16/41, SS.II/2 and SS.II/3; Agenda 21, chapters 9, 12 and 14; Rio Declaration, principles 7, 14, 18 and 19; and the Convention on Climate Change, articles 3, 4, 5 (a) and (b), 6 and 12.

C. Agenda 21, Rio Declaration on Environment and Development and United Nations Framework Convention on Climate Change (FCCC): priorities for UNEP

3. The priorities for UNEP arising from Agenda 21, the Rio Declaration on Environment and Development and the United Nations Framework Convention on Climate Change are:

(a) Extending the activities of the World Climate Impact Assessment and Response Strategies Programme (WCIRP), ensuring inter-agency coordination within the United Nations family and cooperatively with governmental and other national and international programmes concerned with climate impacts and response strategies (Agenda 21, chapter 9, programme areas A and B; FCCC, arts. 4 and 5), including those related to the effects of atmospheric pollution, enhanced UV-radiation and of climate variability and change on people and the environment particularly in tropical and sub-tropical regions (Agenda 21, chapter 9, programme areas C and D, chapter 12, programme areas A and E, and chapter 14, programme area L);

(b) Encouraging national inventories of greenhouse-gas sources and sinks; national climate change impact assessments and response strategy studies; greenhouse-gas abatement costing studies and other related national studies of climate (Agenda 21, chapter 9, programme area B; FCCC, arts. 4 and 12);

(c) Cooperation with Governments and promotion at the international level in the development and exchange of education and public awareness material (Agenda 21, chapter 9, programme area A; FCCC, arts. 4 and 6);

(d) Promotion of research on the critical linkages between sustainable development and atmospheric changes (Agenda 21, chapter 9, programme area A; FCCC, arts. 3 and 5; Rio Declaration, principle 7);

(e) Support for the extension of the Global Climate Observing System and other observation and monitoring programmes concerning the state of the atmosphere and interlinkages with ocean and terrestrial elements which relate to climate processes (Agenda 21, chapter 9, programme area A, and chapter 14, programme area E; FCCC, art. 5);

(f) Ensuring that actual and potential atmospheric changes and their socio-economic and ecological impacts are fully taken into account in implementing policies and programmes concerning terrestrial and marine resources utilization and land use practice (Agenda 21, chapter 9, programme area B, section 4, chapter 12 and chapter 14, programme area E; FCCC, art. 4, para. 1 (f));

(g) Support to programmes addressing the issues of climate and energy, climate and economics and the need for coordinated response to environmental emergencies (Agenda 21, chapter 9, programme areas B, section 1, and D; Rio Declaration principles 18 and 19).

II. PROGRAMME ELEMENTS

Programme element 1.1. Protection of the atmosphere

1. Activities

1.1.1 **Description**: Climate-related country studies. Encouragement of and support to national studies of climate, variability and change including inventories of sources and sinks of greenhouse gases; assessments of climate impacts and of response strategies; greenhouse-gas abatement costing studies, including assessment of technology needs and costs.

Output: National assessments, inventories and identification of national response strategies.

Proposed allocation under subprogramme 1	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,000,000 (C1) $380,000 (C2) $200,000 (S)	Oceans (4.4.2) Energy and environment Environment and economics Support and cooperation GEMS	 In kind In kind In kind In kind	Governments; UNDP; ESCAP/AsDB; Other regional development banks; ECA; World Bank; Environmental Change Unit, Free University, Amsterdam; NCAR

1.1.2 **Description**: World Climate Impact Assessment and Response Strategies Programme (WCIRP). Further development of and expansion of the activities carried out under WCIRP, in particular the assessment of impacts on climate-sensitive sectors of the environment and socio-economic sectors related to development, as well as health aspects of climate variability and change. Impact of urban development on climate. Identification of critical linkages between climate and sustainable development. Coordination of WCIRP with other components of the World Climate Programme and with climate-impact-related activities of United Nations agencies.

Output: Climate-sensitive sectoral analyses, World Climate Programme reports and assessments.

Proposed allocation under subprogramme 1	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,415,420 (C1) $285,000 (C2) $500,000 (S)	All subprogrammes	In kind	Governments; WMO; WHO; ICAO; UNESCO; FAO; ICSU; ECA; ECE; ESCAP/AsDB

1.1.3 **Description**: Support for international activities related to global responses to climate change. Support for the Intergovernmental Panel on Climate Change (IPCC), including promotion of climate-impact related research needed for IPCC assessments; support to the work of the Intergovernmental Negotiating Committee (INC) and parties to the Convention on Climate Change, particularly with regard to climate impact research and assessment needs identified by the Parties; support to the Global Climate Observing System and other atmospheric monitoring programmes (Climate System Monitoring, BAPMoN); support to IGBP and AMCEN.

Outputs: Climate impact research reports relevant to IPCC assessment needs. Impact assessment and drought-preparedness measures particularly relevant to Africa (ACMAD). Assessment and data reports from the monitoring programmes.

Proposed allocation under subprogramme 1	Interlinkages with, and inputs from other subprogrammes		Cooperating agencies/supporting organizations
$1,225,000 (C1) $190,000 (C11) $200,000 (S)	Oceans (4.4.2) GEMS (10.2.4) Environmental Law Water Energy and Environment Soils Forests (3.3.1) Capacity-building	 In kind In kind In kind In kind In kind	WMO; United Nations; Parties to the Climate Convention; ECA; ICAO; IOC; IAEA

1.1.4 **Description**: National climate programmes. Cooperation with United Nations agencies in encouraging the development of national climate programmes incorporating climate impact and response strategy elements; encouragement of multi-disciplinary and cross-sectoral cooperation on climate issues within countries and operation and expansion of an international network of national climate impact programmes.

Outputs: National, regional and global climate impacts/response strategies research network, international climate impacts newsletter.

Proposed allocation under subprogramme 1	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$810,000 (C1)	Capacity-building	In kind	UNIDO; ESCAP/AsDB
$190,000 (C2)	Earthwatch, GEMS	In kind	
$300,000 (S)	Oceans (4.4.2)		
	Support and cooperation	In kind	

1.1.5 **Description:** Education, training and public awareness. Promotion of capacity-building and dissemination of knowledge of atmospheric issues in countries and regions through development and distribution of public-awareness materials; holding of training seminars/environmental-awareness workshops and conferences on atmospheric issues relevant to the various regions, in cooperation with the Information Unit on Climate Change.

Outputs: Trained personnel, public-awareness and knowledge dissemination of knowledge on atmospheric issues.

Proposed allocation under subprogramme 1	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$210,000 (C1)	Capacity-building	In kind	WHO; UNESCO;
$190,000 (C2)	Earthwatch, GEMS	In kind	Governments
$280,000 (S)	Industry, energy	In kind	
	Support and cooperation	In kind	

1.1.6 **Description:** Drought early warning and mitigation. Improving understanding of climate-related drought and provision of early warning and drought mitigation information.

Outputs: Better drought preparedness and drought-mitigation measures distributed to drought-prone countries.

Proposed allocation under subprogramme 1	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$405,000 (C1)	Earthwatch, GEMS	In kind	Governments; WMO;
$95,000 (C2)	Desertification (3.2.7)		UNESCO/IOC;
$400,000 (S)	Soils	In kind	NCAR

1.1.7 **Description:** Effects of ozone layer depletion. Assessment of the state of the ozone layer, environmental effects of ozone depletion and the technological and economic aspects of phase-out of the ozone depleting substances.

Output: Studies of UV-radiation effects on health and environment relevant to decisions of contracting parties to the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol. Research reports.

Proposed allocation under subprogramme 1	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$16,000 (C1)	Ozone Secretariat	(Vienna Convention and Montreal Protocol trust funds)	Governments; WHO; WMO; UNESCO
$4,000 (C2)	Earthwatch	In kind	

1.1.8 **Description:** Support to the Information Unit on Climate Change (IUCC).

Output: Fact-sheet on climate change and its impacts on socio-economic systems; films, videos.

Proposed allocation under subprogramme 1	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$2,000,000 (C1)	Oceans Water Earthwatch, GEMS Desertification Forests	WMO INC secretariat

1.1.9 **Description:** Rephased activities from 1992-1993 biennium.

Proposed allocation under subprogramme 1	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$500 000 (C1)	-	-

2. **Programme element 1.1: overview of proposed resource allocation under subprogramme 1 (United States dollars)**

Activity	Core 1	Core 2	Supplementary	Total
1.1.1	1 000 000	380 000	200 000	1 580 000
1.1.2	1 420 000	285 000	500 000	2 205 000
1.1.3	1 225 000	190 000	200 000	1 615 000
1.1.4	810 000	190 000	300 000	1 300 000
1.1.5	210 000	190 000	280 000	1 280 000
1.1.6	405 000	95 000	400 000	900 000
1.1.7	16 000	4 000	0	20 000
1.1.8.	2 000 000	0	0	2 000 000
1.1.9	500 000	0	0	500 000
TOTAL	7 586 000	1 334 000	1 880 000	10 800 000

III. SYSTEM-WIDE PROGRAMME

A. System-wide strategy

The system-wide strategy is set out in the system-wide medium-term environment programme 1990-1995, paragraphs 57-66 and 71-79.

B. Activities of the United Nations system and other organizations

WMO — Collection and assessment of data from a world-wide network (the Global Atmosphere Watch system) on the chemical composition and related physical parameters of the atmosphere in order to be able assess the present and to predict the potential changes in the atmospheric composition and climate. Special emphasis is given to the traditional WMO ozone research and monitoring activities on which all assessments for the apparent ozone depletion are based. In the field of long-range transport of air pollutants, assessments of performance of the meteorological aspects of existing models are continuing, and assessments of global air pollution transport models are in progress.

Support for the Secretariat of IPCC for the process of negotiating the Climate Change Convention and for other climate-related United Nations system-wide activities.

Climate Change Detection Project, continued and improved monitoring of the global climate system, assistance to countries in improving climate date management systems and rescuing old datasets, transfer of technology for climate data management, consolidation of climate data requirements and improvement of exchange of data, further development and implementation of a climate data referral system, development of global/regional climate datasets.

Development of application techniques in response to user requirements; development of methodologies to assess climate and climate change effects of various socio-economic activities, including food production, water resources management, energy production and consumption, etc; assistance to members in developing their climate application services; further development of the climate application referral system to combat effects of drought, and for climatological services in general.

Implementation of Global Climate Observing System (GCOS) in order to observe and understand the atmosphere and to measure parameters important for climate impact studies, jointly by WMO, UNEP, ICSU and IOC. UNEP's involvement will be mainly through the Global Terrestrial Observing System (GTOS).

UNESCO — Study of the relationship between climate change and hydrological regime and land use change; study of the hydrological and water management aspects of possible changes in sea level.

IOC — Development of databases and undertaking of research and monitoring for impact evaluations and improved predictions thereof; continued establishment of networks for measurements of sea level, seawater temperature and other relevant parameters; development and implementation of global ocean research programmes as part of the ocean component of the WCRP, including WOCE, TOGA; studies on ENSO and its impact on precipitation and temperature regime and in order to apply the available forecasts to specific regions through the TOGA programme; contribution to GCOS and the climate module of the Global Ocean Observing System; development of studies of coastal-zone and shelf sea dynamics, water circulation and water mass distributions, providing inter alia boundary values for global ocean studies and modelling; interpretation and evaluation of results of scientific studies and monitoring data for impact assessments and management.

WHO Guidelines and technical cooperation for reduction of urban air pollution and its effects on human health. Collaboration with UNEP, WMO and IARC in a research project (INTERSUN) on the health impacts of solar UV-radiation related to the ozone layer. Assessments of the potential adverse impact of projected climatic change on health.

FAO Strategies on Climate Change: World Agriculture and Rural Development, including inter alia development of monitoring and early warning systems for extreme events such as droughts; stimulation of research to increase reliability of seasonal weather forecasts; promotion of databases on natural resources and land use that influence sources and sinks of greenhouse gases; research on increased CO_2 on plant growth; improved modelling of climate change at regional and national level. Current studies dealing with guidelines and methods of assessment of climate-change impact on irrigated agriculture; methods for regional impact studies on crop agriculture and on identification of sensitive areas; identification of management alternatives on the issue of methane release from ruminants and rice paddies to maintain productivity and decrease emissions.

IAEA Support to IPCC in assessing nuclear power construction capacity and using environmental isotope methods for improving the assessment of sources and sinks for major trace gases in the atmosphere.

UNIDO Development and implementation of programmes and projects to introduce technologies and methodologies to industry in the following areas: alternative clean fuel programmes (cleaner coal and oil, emission control); greater efficiency in combustion processes and energy conservation; and alternative clean energy sources (solar, hydropower, hydrogen). UNIDO also provides technical assistance in setting policies and regulations to control and reduce industrial emissions to the atmosphere and training to implement the enforcement of these policies and regulations. As the fourth executing agency of the Multilateral Fund of the Montreal Protocol, UNIDO addresses technological and economic aspects of the phase-out of ozone-depleting substances for developing countries, in particular at plant-level. (This is also relevant to subprogramme 9.)

ICAO Review of the actions needed to control the effects of aircraft engine emissions around airports and in the upper atmosphere, taking into account the environmental need to control aircraft engine emissions and the technical feasibility, safety and economic consequences of doing so.

ECE Implementation of regional convention and protocols on long-range transboundary air pollution, and related programmes for monitoring and assessment of air pollution and for emission control technology. Studies on: the inter-relationships between environmental and energy policies; the greenhouse problem in relation to the general situation in the electric power industry; the possibility of reducing greenhouse gas emissions and the interaction between greenhouse gas emissions and other emissions control policies; interrelationship between the gas industry and climatic changes.

ESCAP Asia-Pacific Strategy on Climate Changes: In collaboration with Asian Development Bank (AsDB) ESCAP is developing national strategies in 10 selected countries of the region and also a regional strategy on addressing the issues of climate change. Development of a regional network of institutions on data and information exchange on climate change.

ECA Through its Socio-economic Research and Planning Division, collection and assessment of data on the relationship between climate and different aspects of economic activities and economic performance. Through ACMAD and also as part of AMCEN Climate Network activities, participation in activities of the World Climate Impact Assessment and Response Strategies Programme, including country level profiles, and support, through regional inputs, for the international activities related to global climate change.

SUBPROGRAMME 2. ENVIRONMENTAL MANAGEMENT OF FRESHWATER RESOURCES

I. PROGRAMME STRATEGY OF UNEP

A. Strategy

1. The freshwater subprogramme is targeted in part through the UNEP's Environmentally Sound Management of Inland Waters (EMINWA), and is geared to assisting Governments to develop, approve, and implement environmentally sound water management programmes for inland water systems, whether international rivers or lake basins, or groundwater resources, in an integrated manner. Action by UNEP in each water resource presupposes agreement by all concerned Governments. This would be accomplished at the regional level with effective involvement, cooperation and support of relevant UNEP programmes, United Nations agencies and international organizations, bearing in mind the linkages with national priorities and the commitment of the concerned governments towards international cooperation, and the mutual benefits that would accrue to each concerned government arising from such basin-wide cooperation. Other areas that will receive special attention are the interrelationship between climate change and freshwater resources, and the assessment and control of pollution of water resources and wastewater reuse. In addition to international waterbodies, where relevant and appropriate, assistance to individual countries and capacity-building oriented activities in the integration of environmental and socio-economic concerns in water-management efforts will be undertaken. Effective, scientifically sound, environmental management of freshwater resources, nationally and internationally, also requires effective environmental assessments. This latter aspect has close linkages with other UNEP subprogrammes, including Earthwatch, terrestrial ecosystems, environmental health, settlements and human welfare, environmental law, environmental economics, and capacity-building. It also encompasses the transfer of environmentally sound technologies to developing countries and countries in transition, such as the activities and training on environmental management of freshwater lake and reservoir basins by the UNEP International Environmental Technology Centre (IETC).

B. Legislative authority

2. The legislative authority for the subprogramme derives from the revised United Nations medium-term plan 1992-1997 (A/47/6/Rev.1), programme 16 (Environment) General Assembly resolution 44/228, Governing Council decisions 14/1, 14/22, 15/1, 15/9 and 16/39, and Agenda 21, chapters 6, 18, 34 and 36.

C. Agenda 21 priorities for UNEP

3. The Agenda 21 priority for UNEP, based on the six programme areas in its chapter 18, is to improve regional cooperation in the management of international water bodies by strengthening the relevant water units. This includes the development of appropriate environmentally sound methodologies and techniques for:

(a) The holistic, integrated management of freshwater resources, recognizing their finite quantity and susceptibility to pollution by human activities. This element also includes development and enhancement of methods for the integration of sectoral water plans and resources within national economic and social policies, and the coordination of responsibilities for water resources development among sectoral agencies;

(b) The identification and assessment of potential freshwater resources, including their sources, dependability of supply, quality, and the human activities that can affect those elements. Such information is fundamental for the development and management of water resources. Elements of this activity include assistance in the accurate and effective assessment of water resources, as well as enhancing the use of advanced technology for analysis and management of necessary water resource databases;

(c) Enhancing the recognition of the complex linkages between the development, management, use and treatment of water resources and aquatic ecosystems. This is necessary for long-term, effective management of water resources, including prevention of degradation of surface and groundwater supplies by a myriad of human activities such as deforestation, poor agricultural practices, the discharge of inadequately treated municipal and industrial wastewaters, and poorly designed or constructed water diversion or irrigation practices. Also included is the development of preventive rather than reactive approaches to water rehabilitation, and the need for widespread public education on these topics;

(d) The development and introduction of appropriate technologies for the protection of safe drinking water-supplies and sanitation. Because of the incidence of waterborne disease on a global scale, as well as the need for safe water for many traditional and cultural activities, attention will be given to methodologies for providing drinking water in quantities and of a quality necessary for fundamental human needs;

(e) Assessment of the fundamental effects of urbanization on freshwater resources, and recognition of the crucial role of local and municipal authorities in managing water supply, treatment and usage. Elements of this activity also include methodologies for alleviating or eliminating unsustainable water consumption patterns in urban areas, and improvement of the quality of life related to the water needs of the urban population;

(f) Development and application of water-saving technologies and management practices, as well as providing capacity-building for communities to adopt and use these technologies in an appropriate manner. Recognizing that freshwater resources have a fundamental role in the sustainable production of food crops, livestock and fisheries, relevant elements include water conservation methodologies for rain-fed agriculture, erosion prevention, irrigation schemes and provision of rural drinking water supplies. Also important is development of methodologies for the provision of water of sufficient quantity and quality for the production of livestock, and the management of water quality and conservation of inland waters for maximizing the yield of fish and other aquatic food organisms while, at the same time, protecting the integrity of aquatic ecosystems.

II. PROGRAMME ELEMENTS

Programme element 2.1. Environmental management of freshwater resources

1. Activities

2.1.1. **Description**: Preparation of elements for the integrated environmental management of international freshwater resources. These resources include the Orinoco, Okavango, and Baikal basins. It also includes support of the implementation of the global GEMS/Water programme in international river basins covered by the action plans.

Outputs: The outputs comprise:

(a) Methodologies for:

(i) Assessing quality, environmental integrity and quantity of international freshwater resources;

(ii) Developing control strategies/options for integrated management of international freshwater resources;

(iii) Assessing feasibility of alternative management strategies/options for international freshwater resources;

(b) Strengthening institutional, manpower and technical capabilities of involved countries/regions regarding integrated management of international freshwater resources;

(c) Support for related activities within United Nations system, including IETC;

(d) Water-quality and quantity databases on a minimum of two international river basins and associated comprehensive reports;

(e) Strengthened regional capabilities (institutional, manpower, technical) to monitor and assess regional water resources.

Proposed allocation under subprogramme 2	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$2,185,000 (C1)	GEMS/Water (10.2.6)		United Nations; UNDP; UNIDO; WHO; UNESCO; IUCN (Okavango); regional economic commission; IETC (Trust Fund); World Bank; Governments
$911,400 (C2)	Atmosphere (1.1.3)		
$850,000 (S)	Environmental law	In kind	
	Environmental economics	In kind	
	Capacity-building	In kind	
	Terrestrial ecosystems	In kind	
	Support and cooperation	In kind	

2.1.2. **Description**: Support for the implementation of basin action plans. These plans may include the Zambezi, Chad, Xolotlan, Aral Sea, Nile, and Danube basins. Also included is support of the implementation of the global GEMS/Water programme in international river basins covered by the action plans.

Outputs: The outputs comprise:

(a) Zambezi, Chad, and Aral Sea. Convening of expert group to prepare basin action plans;

(b) Nile and Xolotlan. Diagnostic study (tentative);

(c) Water-quality and quantity databases on a minimum of two international river basins and associated comprehensive reports;

(d) Strengthened regional capabilities (institutional, manpower, technical) to monitor and assess regional water resources.

Proposed allocation under subprogramme 2	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$2,285,000 (C1)	GEMS/Water (10.2.6)		United Nations; UNDP; UNIDO; UNESCO; WHO; FAO; WMO; regional economic commissions; World Bank; IETC (Trust Fund) Governments; IUCN
$515,000 (C2)	Biodiversity	In kind	
$850,000 (S)	Environmental economics	In kind	
	Environmental law	In kind	
	Support and cooperation	In kind	
	Capacity-building	In kind	

2.1.3. **Description**: Strengthening professional capabilities for policy formulation and application of environmental management tools, especially for integration of sectoral water plans within the framework of national economic and social policy in developing countries.

Outputs: The outputs comprise:

(a) Two training modules for training courses on integrated water basin management;

(b) Five training courses on integrated water basin management (one each in Asia, South America and the Middle East, and two in Europe);

(c) Two books on aspects of integrated lake management.

Proposed allocation under subprogramme 2	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,350,000 (C1) $200,000 (C2)	Capacity-building (11.1.2) Support and cooperation Environmental economics Environmental law Human settlements	 In kind In kind In kind In kind	UNESCO; IAHS; IOW; WHO; United Nations; UNIDO; regional economic commissions; TVE; IUCN; Governments

2.1.4. **Description**: Assistance to developing countries for strengthening their institutional capabilities regarding environmental management of freshwater resources, application of economic instruments in national water policies, provision and management of sustainable drinking water and sanitation and control of pollution of water resources and wastewater reuse.

Outputs: The outputs comprise:

(a) Training courses, preparation of technical materials and workshops for the management of water resources, provision of safe drinking water, water and wastewater sanitation, control of surface and groundwater pollution, and reuse of wastewater;

(b) Support for attendance of qualified individuals to participate in relevant training courses, and other scientific and technical conferences/workshops;

(c) Strengthening of regional capacities to support technical and other relevant professional training;

(d) Support for related activities within the United Nations system, including IETC.

Proposed allocation under subprogramme 2	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$930,000 (C1) $23,600 (C2) $400,000 (S)	Soils (3.1.9) (3.1.10) Lithosphere Human settlements Capacity-building Support and cooperation Environmental law Environmental and economics	 In kind In kind In kind In kind In kind In kind	WHO; United Nations; UNIDO; UNDP; ILO; UNCHS; regional economic commissions; IWRA; IETC (Trust Fund); Governments; UNESCO; WMO; UNCHS; IUCN

2.1.5. **Description**: Support for research on environmental management of groundwater resources.

Output: Publication based on a series of workshops on groundwater pollution.

Proposed allocation under subprogramme 2	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$100,000 (C1) $100,000 (S)	Lithosphere (3.6.4)	UNESCO; WMO; WHO; regional and subregional organizations

2. Programme element 2.1: overview of proposed resource allocation under subprogramme 2 (United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
2.1.1	2,185,000	911,400	850,000	3,946,400
2.1.2	2,285,000	515,000	850,000	3,650,000
2.1.3	1,350,000	200,000	-	1,550,000
2.1.4	930,000	23,600	400,000	1,353,600
2.1.5	100,000	-	100,000	200,000
Total	6,850,000	1,650,000	2,200,000	10,700,000

II. SYSTEM-WIDE PROGRAMME

A. System-wide strategy

1. The system-wide strategy is set out in the system-wide medium-term environment programme 1990-1995, paragraphs 87-89 and 96-101.

B. Activities of the United Nations system and other organizations

UNESCO	Under the International Hydrological Programme (IHP), study of hydrology and water resources for sustainable development in changing environments; prediction of hydrological, chemical and biological process of contaminant transformation and transport in land and water systems and the effect of large-scale snow and ice covers on global and regional precipitation systems. The inclusion of social aspects in the integrated evaluation of water resources; hydroecological models and biomonitoring for environmental evaluation and prediction of impacts of natural and man-made changes, hydroecological classifications of freshwater bodies, environmental and socio-economic consequences of the development of water projects; study of experiences with modern water resources planning and management methods taking into account risk factors and comprehensive and comparative study of great lakes in Africa. Review of university curricula for hydrology and water resources engineering taking climate and environmental aspects into account to a greater extent. Cooperation between IHP and MAB on studies on land-freshwater ecotones.
WMO	WMO undertakes under the operational hydraulic programmes a wide range of activities concerned with the assessment, monitoring and forecasting of water resources and the freshwater environment, including the international exchange of operational technology. Specific activities relate to instrumentation, the collection, storage and processing of data, data analysis and hydrological modeling. The scope encompasses both quantity and quality aspects and leads to involvement in GEMS/Water on the monitoring of freshwater quality.
FAO	FAO is implementing many irrigation water resources development and management field projects in the Lake Chad and Zambezi basins. The FAO/UNDP project "Studies for integrated irrigation systems" assists the Ethiopian Valley Development Studies Authority in the comprehensive development planning of the Ethiopian river basins, including several environmental components. FAO has prepared several training manuals for middle-level technicians and extension staff on various aspects of irrigation water management.
WHO	Global monitoring and evaluation of progress in drinking-water supply and sanitation; cooperation in national planning for drinking-water supply and sanitation in the identification and implementation of projects; development and dissemination of information on operation, maintenance and rehabilitation of drinking-water supply and sanitation. Updating and publication of WHO guidelines for drinking-water quality; provision of health criteria for the reuse of waste water; technical cooperation in the development and implementation of national standards for drinking-water quality and for their surveillance and enforcement. Operation and information systems and databanks, including world health statistics, appropriate technology for health information system, and epidemiological information system; development of inter-country networks for training, information exchange and research in areas of epidemiology, environmental health impact assessment and planning.
ILO	Water-related components are included in ILO technical assistance activities concerning training, employment and labour-intensive infrastructural development.
IAEA	Supports numerous hydrological projects using isotope and nuclear techniques to assess and develop freshwater resources (Mekong Delta, lakes Asososca and Managua in Nicaragua).
UNIDO	Water-related components are included in UNIDO assistance to developing countries to promote industrial development, expand and modernize industries, and to fully utilize available resources.
United Nations	Technical assistance for the effective management and monitoring of water quality, environmental aspects of water drilling, and the clean-up of polluted bodies of water. Assistance to Governments in the design and execution of projects and programmes covering river/lakes/basins planning, waterlogging and salinity, monitoring the performance and impacts of high dams and reservoirs together with sedimentation problems, environmental aspects of deep-water drilling, especially in desert areas, overpumping and seawater intrusion into groundwater aquifers, restoration of polluted waters and treatment and management of toxic chemicals and wastes that pollute lakes and other water supplies. Has developed groundwater software programmes and is disseminating them in three languages to interested developing countries. Development of legislation on water rights and water quality. Organization of international seminars covering water quality and related aspects. Co-sponsor of Freshwater Consultative Forum.
ESCAP	Assistance to countries of the Asia and Pacific region in the assessment of water resources and demand management control and prevention of water pollution reduction of water related disasters and coordinates regional activities of international organizations through inter-agency task force on water for the region.
ECA	Preparation, through its water resources development programme and also within the context of intergovernmental agreements on shared water resources, of the basic elements for the management of shared water resources.

UNHCR	Potable water supply in refugee camps and settlements is one of the important components of UNHCR's assistance programmes. Within this context, UNHCR assists Governments in exploring and developing water resources.
IETC	Promotion of the transfer of environmentally sound technologies to developing countries and countries with economies in transition, with special focus on environmental management of big cities and freshwater lake and reservoir basins.

SUBPROGRAMME 3. ENVIRONMENTAL MANAGEMENT OF TERRESTRIAL ECOSYSTEMS AND THEIR RESOURCES

I. PROGRAMME STRATEGY OF UNEP

A. Strategy

1. The aim of this subprogramme is to catalyse actions by UNEP, to encourage Governments and regional organizations and to support actions that will lead to effective environmental management of terrestrial ecosystems and their resources, especially through the full implementation of the Convention on Biological Diversity, the Global Biodiversity Strategy, the report Caring for the Earth. A Strategy for Sustainable Living, the Tropical Forestry Action Plan, the Plan of Action to Combat Desertification, the World Soils Policy, the MAB Programme and the all-embracing provisions of Agenda 21. The overall policy is to make the environmental management of terrestrial ecosystems and their resources an important part of, and fully integrated with, social and economic activities to ensure that these environmental activities and economic growth objectives become mutually supportive. Accordingly, efforts will be increased along the following lines:

(a) The reinforcement of interlinkages within different areas of terrestrial ecosystems (soils, forests, desertification, biodiversity, etc.);

(b) The application of economic and legislative tools for increasing effectiveness of national policies in key productive sectors associated with terrestrial ecosystems management;

(c) Human resources development;

(d) Capacity-building.

2. The main elements of the strategy are:

(a) Conservation and sustainable use of biological diversity;

(b) Maintenance of the productivity of terrestrial ecosystems by preventing land degradation in the drylands (desertification control) and the humid zones, stimulation of soil, water and vegetation conservation and application of integrated approaches to the planning and management of land resources;

(c) Monitoring and minimization of the impacts of agrochemicals on livestock and human health with emphasis on safety in agrochemicals used and pests management;

(d) Enhancement of the protection, sustainable management and conservation of all forests, especially tropical forest ecosystems through assessment and systematic observations of forest programmes, including commercial trade and processes, assessment of the global dimensions of deforestation, and the promotion of afforestation, reforestation and other forest rehabilitation means;

(e) Maximization of the benefits and the safe use of biotechnologies.

3. Effective management depends heavily on effective environmental assessment; this has close linkages with subprogramme 10, and a wide range of other subprogrammes, for example, those relating to atmosphere, freshwater resources, environmental law, environmental economics, oceans and coastal areas, capacity-building and regional cooperation.

B. Legislative authority

4. The Legislative authority for the subprogramme derives from the revised United Nations medium-term plan, 1992-1997 (A/47/6/Rev.1), programme 16 (Environment); General Assembly resolutions 32/172, 35/74, 37/7, 39/168, S-13/2, 42/186, 42/187, 43/203, 44/172, 44/228 and 44/229; Economic and Social Council resolution 1988/31; resolution I of the Governing Council at its session of a special character of 1982, sections I, paragraph 3 (b), III, paragraph 2, and IV, paragraph 3, Council decisions 10/12, 10/13, 10/14, section III, 10/15, 10/16, 10/17, parts six and seven, 12/10, 12/12, sections II, III and V, 12/13, 12/14, sections IV, 13/9 A, paragraphs 2 (c) and 2 (d), 13/18, sections II B and V, 13/27-13/30, 14/1 B, section I, 14/13-14/15, 14/21, paragraphs 5 (s) and 8 (i), 14/26, 15/1, section IV, 15/2, 15/16, 15/24 and 15/34, and Agenda 21, chapters 10-16, 31, 35 and 36.

C. Agenda 21 priorities for UNEP

5. The Agenda 21 priorities for UNEP are:

(a) Soils, agricultural lands and agrochemicals:

(i) Developing policies that encourage sustainable land use and integrated approaches in land use planning and management (chapter 10);*

(ii) Reviewing land use laws in order to identify improvements needed to support sustainable benefits (para. 10.6 (c));

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* All references to chapters and paragraphs in this section are to those of Agenda 21.

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(iii) Assessing environmental, social and economic impacts, risks and cost-benefit of specific land resources management use (para. 10.8 (b));

(iv) Assessing land capability and ecosystem functions and interactions with social, economic and environmental systems (paras. 10.8 (c) and 10.14 (a) and (b));

(v) Developing indicators of sustainability for land resources, taking into account environmental, economic, social, demographic, cultural and political factors (para. 10.14 (c));

(vi) Transferring techniques and training and educating all relevant sectors concerned to deal with land resources in an integrated and sustainable manner (paras. 10.16 and 10.17);

(vii) Promoting safety use of agrochemicals (chapter 6);

(viii) Promoting sustainable agriculture and environmental development (chapter 14, programme (e) and strengthening the role of farmers (chapter 32),

(b) Desertification:

(i) Improving the "knowledge base", monitoring and assessment and capacity-building (chapter 12);

(ii) Innovative approaches for the collection and dissemination of information will be developed. 'Information' in this context includes assessment and monitoring of desertification processes at local, national and regional levels as pertaining to its socio-economic and physical aspects, monitoring of successful activities so as to identify replicable solutions; establishment of registers and databases on desertification control technologies and subject specific scientific results. Appropriate dissemination of this 'knowledge base' (mass media, training courses, technical seminars and workshops, etc.) will enhance awareness of the problems and their solutions and support capacity-building at different level. (chapters 12 and 36);

(iii) Development of comprehensive anti-desertification programmes, technical assistance, utilizing the services and expertise of other United Nations agencies and other implementing organizations such as regional organizations and research institutions (chapter 12);

(iv) Drought preparedness and drought relief schemes. Encouraging more attention to be given to preparedness for droughts by catalysing activities in these areas. Support for a working group on the El Niño phenomenon to improve the scientific understanding of recurring droughts, especially in Asia and Africa will be continued (chapter 12);

(v) Convention to Combat Desertification. Paragraph 12.40 of Agenda 21 requests the General Assembly to establish, under its aegis, "an intergovernmental negotiating committee for the elaboration of an international convention to combat desertification, in those countries experiencing serious drought and/or desertification, particularly in Africa, with a view to finalizing such a convention by June 1994";

(c) Forests and other ecosystems:

(i) Development of effective measures and approaches at the national level, to improve and harmonize policy formulation, planning, assessment and systematic observation of forests and related programmes and capacity-building in order to ensure a rational and holistic approach to the sustainable environmentally sound development of all types of forests (chapter 11, programme area A);

(ii) Enhancing the protection, sustainable management and conservation of all forests and the greening of degraded areas, through forest rehabilitation, afforestation, reforestation and other rehabilitation means (chapter 11, programme area B);

(iii) Promoting efficient utilization and assessment to recover the full valuation of the goods and services provided by forests, forest lands and woodlands (chapter 11, programme area C);

(iv) Establishing and/or strengthening capacities for the planning, assessment and systematic observation of forests and related programmes, projects and activities, including commercial trade and processes (chapter 11, programme area D);

(v) Generating and strengthening knowledge about the ecology and sustainable development of mountain ecosystems (chapter 13, programme area A);

(vi) Also relevant to the above programme areas are the "Forest Principles" adopted by UNCED and whose implementation will contribute to the management, conservation and sustainable development of forests and provide for their multiple and complementary functions and uses;

(d) Biological diversity:

(i) Early entry into force of the Convention on Biological Diversity, with the widest possible participation (para. 15.4 (a));

(ii) Preparation of country studies on the conservation of biological diversity and the sustainable use of biological resources, including analysis of relevant costs and benefits (paras. 15.4 (e) and 15.5 (c));

(iii) Regular production and updating of world reports on biodiversity based upon national assessments (para. 15.4 (f));

(iv) Development or strengthening of existing national strategies and action plans for the conservation of biological diversity and sustainable use of its components (para. 15.5 (a));

(v) Promotion of international and regional scientific and technical cooperation and cooperation in furthering scientific and economic understanding of the importance of biodiversity and its functions in the ecosystems (para. 15.4 (i));

(vi) Strengthening of international and regional programmes and action plans concerned with the conservation of biological diversity (para. 15.7 (f));

(vii) Promotion of cooperation between the parties to relevant international conventions and action plans with the aim of ensuring their coordinated and effective implementation (para. 15.7 (c));

(viii) Establishment or strengthening of national and international capabilities and networks for the exchange of relevant data and information (para. 15.7 (a));

(ix) Human resources development and institutional building (para. 15.7 (c) and 15.10 (a));

(e) Microbial resources and related biotechnologies:

(i) Enhancing enabling mechanisms for the development and environmentally sound application of biotechnology by enhancing existing efforts at the national, regional and global levels (chapter 16, programme area E);

(ii) Use of environmentally sound biotechnologies for increasing the availability of food, feed and renewable raw materials (chapter 16, programme area A);

(iii) Human resource development and institution building (chapter 16, programme area E, paras. 16.45 and 16.46);

(iv) Enhancing protection of the environment (chapter 16, programme area C) through:

a. Optimal use of natural resources by recycling biomass, recovering energy and minimizing waste generation (para. 16.22 (a));

b. Use of biotechnologies for bio-remediation of land and water, waste treatment and soil conservation (para. 16.22 (b));

c. Use of biotechnologies to minimize the requirements for synthetic chemicals and maximize the use of natural products (para. 16.23 (b));

d. Development of processes to treat waste before disposal and remove pollutants from the environment (para. 16.23 (c));

e. Use of biocontrol agents in integrated pest management (para. 16.23 (h));

f. Use of biofertilizers within national fertilizer programmes (para. 16.23 (i));

g. Development of new sound biotechnologies for tapping mineral resources (para. 16.23 (m));

(v) Enhancing safety and developing international cooperation (chapter 16, programme area D) through:

a. Further development of existing biosafety procedures for risk assessment and management, adapting it to the needs of different countries and regions and developing it into a framework of internationally agreed principles as basis for future guidelines on safety in biotechnology (para. 16.32 (a) and (c));

b. Exchange of information about safe handling and risk management and release of biotechnology products (para. 16.32 (e));

c. Considering the need for and feasibility of internationally agreed guidelines on safety in biotechnology releases which could facilitate national legislation on liability and compensation (para. 16.34 (d));

(f) Lithosphere:

(i) Achieving a better understanding of land, oceans, atmosphere and their interlocking water, nutrient and biogeochemical cycles and energy flows which all form part of the Earth system (para. 35.2);

(ii) Increasing the efficiency of resource utilization, including increasing the reuse and recycling of residues, and reducing the quantity of waste discharge per unit of economic output (para. 30.6);

(iii) Introduction of the precautionary approach in water-quality management, where appropriate, with a focus on pollution minimization and prevention through use of new technologies, product and process change, pollution reduction at source and effluent reuse, recycling and recovery, treatment and environmentally safe disposal (para. 18.40 (b) (iv));

(iv) Control of industrial waste discharges, including low-waste production technologies, and water recirculation, in an integrated manner and through application of precautionary measures derived from a broad-based life-cycle analysis (para. 18.40 (c) (i));

(v) Water-quality monitoring, as needed, of surface and groundwaters potentially affected by sites storing toxic and hazardous materials (para. 18.40 (d) (vi)).

II. PROGRAMME ELEMENTS

A. Programme elements 3.1. Soils, agricultural lands and agrochemicals

1. Activities

3.1.1. **Description:** Adaptation of methodologies for regional and national land cover/land use, soil degradation assessments and identification of vulnerable areas and their environmental accounting; promotion of GLASOD, GTOs and of SOTER methodologies for the compilation of the soils and terrain digital database at national and continental levels.

Outputs: Two (one African, one Asian) country reports and one continental report (Latin America); 40 experts trained in compilation of soil and terrain databases.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$500,000 (C1) $100,000 (C2) $200,000 (S)	Earthwatch GEMS (10.2.8) GRID (10.5.3) Environmental economics (6.1.2)	In kind	FAO; ISRIC; ECLAC; ISSS; Governments

3.1.2. **Description:** Implementation of national policies for sustainable agriculture and updating and harmonization of fragmented land-use laws as integral part of land resources management.

Outputs: Three reports, one each from Africa, Asia and Latin America and Caribbean; 20 experts trained in the formulation and implementation of national soils policies.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$400,000 (C1) $110,000 (C2) $300,000 (S)	Capacity-building Environmental law Support and cooperation	In kind In kind In kind	FAO; ISSS; ECLAC; UNDP; Governments

3.1.3. **Description:** Promotion of sustainable systems in fragile soils/land.

Outputs: Two expert meetings, two publications.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes/ programme elements		Cooperating agencies/supporting organizations
$160,000 (C1) $40,000 (C2)	Other relevant parts of terrestrial ecosystems subprogramme	In kind	FAO; CGIAR; Governments

3.1.4. **Description:** Global soil changes in a changing environment. State-of-the-art analysis on soils linkages to global conventions, i.e. climate, biodiversity, ozone, etc.,

Outputs: Two reports.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes/ programme elements		Cooperating agencies/supporting organizations
$150,000 (C1) $30,000 (C2)	Atmosphere Biodiversity	In kind In kind	ISSS; FAO; IGBP

3.1.5. **Description:** Support to activities of the AMCEN soils and fertilizers network.

Outputs: Forty field technicians from Africa trained in soil and water conservation and management, two technical reports, four issues of the network newsletter.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$80,000 (C1)	Capacity-building	In kind	FAO; SOFERNET;
$20,000 (C2)	Support and cooperation	In kind	IBSRAM; African Governments

3.1.6. **Description:** Promotion of field sustainable agricultural development and continued support to the FAO/UNEP Panel o Experts on Integrated Pest Control to achieve this aim.

Outputs: Trained personnel (40) in integrated pest management (IPM); regional expert IPM meetings and implementation of the recommendations emanating from those meetings.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$360,000 (C1)	Environmental health	In kind	UNDP; FAO; ICIPE;
$80,000 (C2)			UNIDO/WHO/FAO/ESCAP;
$100,000 (S)			UNIDO/IAEA

3.1.7. **Description:** Continuation of monitoring and assessment of the level of pesticides and fertilizers used in agriculture.

Outputs: Pesticide datasheets (10), monographs on pesticides (2), trained staff (40).

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes/ programme elements		Cooperating agencies/supporting organizations
$180,000 (C1)	Toxic chemicals and waste		FAO; WHO/IPCS;
$40,000 (C2)	management (8.1.2)		ILO; UNIDO
$80,000 (S)	Microbial resources and biotechnologies (3.5)	In kind	
	IRPTC	In kind	
	GEMS	In kind	
	Environmental health (5.3) (5.4)	In kind	

3.1.8. **Description:** Application of GIS in sustainable agriculture including the impact of climatic change on the epidemiology of diseases of crops and livestock with particular reference to tropical, developing countries, and development of new pest and vector management tools.

Outputs: Trained staff (40); up-to-date evaluation of the impact of climate change on diseases of livestock and crops; guidelines on new and emerging tools for pests and vector management.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$170,000 (C1)	Atmosphere (1.1.2)		FAO; WHO
$40,000 (C2)	GRID	In kind	

3.1.9. **Description:** Continued support to the agreed programme of work of the WHO/FAO/UNEP/UNCHS Panel of Experts on Environmental Management for Vector Control (PEEM).

Outputs: Pilot demonstration projects (Asia, Africa, Latin America); PEEM newsletter; guidelines on environment management for vector control (20); other activities in the agreed programme of work.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$170,000 (C1)	Freshwater resources		WHO; FAO; UNCHS
$40,000 (C2)	GRID (10.5.3)	In kind	

3.1.10. **Description:** Assistance in strengthening environmental management capabilities in developing countries with specia reference to agrochemicals used in pest and vector management and control.

Outputs: Training at all levels (120 people); training material.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$40,000 (C1)	Freshwater resources		WHO; FAO; UNCHS
$10,000 (C2)	Environmental health	In kind	

Programme element 3.1 Overview of proposed resource allocation under subprogramme 3
(United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
3.1.1	500,000	100,000	200,000	800,000
3.1.2	400,000	110,000	300,000	810,000
3.1.3	160,000	40,000	0	200,000
3.1.4	150,000	30,000	0	180,000
3.1.5	80,000	20,000	0	100,000
3.1.6	360,000	80,000	100,000	540,000
3.1.7	180,000	40,000	80,000	300,000
3.1.8	170,000	40,000	0	210,000
3.1.9	170,000	40,000	0	210,000
3.1.10	40,000	10,000	0	50,000
Total	2,210,000	510,000	680,000	3,400,000

B. Programme element 3.2. Arid lands and desertification

1. Activities

3.1 Description: Coordination of UNEP desertification control programme. DC/PAC operation (staff costs, travel, consultants, equipment, miscellaneous); Secretariat services to IAWGD, DESCON and ADALCO; support to the negotiations of a desertification convention.

Outputs: Operational DC/PAC; two regular IAWGD meetings organized and coordination of United Nations; anti-desertification activities enhanced; support for the convention on desertification provided; DESCON-10 organized; ADALCO meetings 7, 8 organized.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$3,600,000 (C1) $500,000 (C2) $200,000 (S)	Environmental law (7.1.4 (c)) Support and cooperation	In kind	Individual United Nations in IAWGD; INC for convention on desertification

3.2 Description: Development of a global desertification control database.

Outputs: Integrated database system with query-answer capabilities on major desertification topics (e.g. desertification control technology register, bibliography) established.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$659,000 (C1) $46,000 (C2) $50,000 (S)	GRID (10.5.3) Soils (3.1.6) Support and cooperation	In kind In kind In kind	Individual United Nations agencies in IAWGD; regional organizations; CGIAR institutes

3.3 Description: Information exchange and general awareness raising on desertification control issues.

Outputs: Four issues of Desertification Control Bulletin; other relevant information materials such as brochures, TV-spots, radio broadcasts, newspaper articles to raise global awareness prepared and disseminated; successful and replicable anti-desertification activities identified and disseminated.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$500,000 (C1) $150,000 (C2) $150,000 (S)	Capacity-building (11.1) Support and cooperation (12.1)	In kind In kind	Individual United Nations agencies in IAWGD; regional organizations; CGIAR institutes; mass media; Governments

3.2.4 **Description**: Assessment and monitoring of status and trends of land degradation in the drylands at regional, national and local level, with emphasis on the assessment of socio-economic aspects of desertification.

Outputs: Management tools provided to international, regional and national policy makers.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$550,000 (C1) $300,000 (S)	Earthwatch, GEMS, GRID, (10.1.7)	In kind	UNDP/UNSO; regional economic commissions; FAO; UNESCO; World Bank; regional and national institutions/Governments; GTOS
	(10.2.8)	In kind	
	(10.5.3)	In kind	
	(3.1)	In kind	
	(6.1.2)	In kind	
	Soils		
	Environmental economics		

3.2.5 **Description**: Assistance to countries in the drylands of the world in formulating integrated national strategies to combat land degradation and to alleviate the impact of drought.

Outputs: Seven countries, (three in Africa, two in Latin America, and two in Asia) assisted in establishing a national strategy to combat desertification (subject to requests received from interested countries); seed money provided to initiate the implementation of these national plans to combat desertification.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$700,000 (C1) $200,000 (C2) $500,000 (S)	Support and cooperation	In kind	FAO; UNDP/UNSO; ESCAP; ECA; ESCWA; World Bank; regional organizations; IUCN; Governments

3.2.6 **Description**: Assistance to intergovernmental bodies and countries in Africa, Asia and Latin America and the Caribbean in the establishment of village level projects involving popular participation for rational exploitation of natural resources including sustainable production of food, fodder, fuel and pastoral nomadism in arid, semi-arid and dry sub-humid regions.

Outputs: Four-five integrated grass-roots projects designed and assistance provided towards their funding and implementation.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$400,000 (C1) $200,000 (C2) $100,000 (S)	Regional and cooperation	In kind	Individual United Nations agencies in IAWGD; regional organizations; IUCN; Governments

3.2.7 **Description**: Assistance to establish schemes to enhance the preparedness against the impact of recurrent droughts.

Outputs: General and country-specific guidelines established to enhance the preparedness against the impact of recurrent droughts and to reduce their effects on land degradation.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$170,000 (C1) $50,000 (C2) $130,000 (S)	Atmosphere (1.1.6)		Individual United Nations agencies in IAWGD; regional organizations; Governments

3.2.8 **Description**: Technology transfer, development and adaptation. Collaboration with and support to institutions and networks active in research, technology development and information exchange, to enhance sustainable dryland management.

Outputs: Improved operational status of information exchange and research networks in Africa, Latin America, West Asia and Asia Pacific; three-four regional workshops organized and proceedings disseminated.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$400,000 (C1) $200,000 (C2) $250,000 (S)	Capacity-building (11.1)	In kind	Individual United Nations agencies in IAWGD; regional and national research institutions; Governments; CGIAR institutes; IUCN
	Support and cooperation	In kind	

3.2.9 **Description:** Capacity-building through support of training programmes aiming to raise technical awareness of problems and solutions as related to dryland degradation. This training will address decision makers, people responsible for technical implantation of desertification control measures and experts in the field of information dissemination.

Outputs: Six-eight regional training courses organized with 20-30 participants each; up to 1,000 persons from Asia, Africa and Latin America trained in desertification control techniques within the United Nations system (IAW members).

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$600,000 (C1) $300,000 (C2) $300,000 (S)	Capacity-building (11.1)	In kind	FAO; UNESCO; WMO; ESCAP; UNDP; UNSO; ESCWA; UNITAR; IUCN; regional and national research institutions; Governments; CGIAR institutes

3.2.10 **Description:** Implementation of the PACD in the Sudano-Sahelian zone. UNEP joint venture with UNDP for institutional and programme support to UNSO.

Outputs: Activities related to PACD implemented in 22 countries of sub-Saharan Africa.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$2,500,000 (C1) $500,000 (C2)	Support and cooperation (12.1.6)	In kind	UNDP/UNSO; IUCN; FAO

2. **Programme element 3.2: overview of proposed resource allocation under subprogramme 3 (United States dollars)**

Activity	Core 1	Core 2	Supplementary	Total
3.2.1	3,600,000	300,000	200,000	4,100,000
3.2.2	659,000	46,000	50,000	755,000
3.2.3	500,000	150,000	150,000	800,000
3.2.4	550,000	0	300,000	850,000
3.2.5	700,000	200,000	500,000	1,400,000
3.2.6	400,000	200,000	100,000	700,000
3.2.7	170,000	50,000	130,000	350,000
3.2.8	400,000	200,000	250,000	850,000
3.2.9	600,000	300,000	300,000	1,200,000
3.2.10	2,500,000	500,000	0	3,000,000
Total	10,079,000	1,946,000	1,980,000	14,005,000

C. **Programme element 3.3. Forests and other ecosystems**

1. **Activities**

3.3.1 **Description:** Support efforts to assess the impact of global change on forest ecosystems including support to the network.

Output: Publication of research results.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$800,000 (C1) $840,000 (S)	GEMS (10.2.4) Earthwatch Atmosphere (1.1.3)	In kind	GCTE; UNESCO; FAO; WMO

3.3.2 **Description**: Support to international organizations, Governments and national institutions and NGOs to develop and implement regional and national plans for sustainable management of all forests types and other ecosystems. This activity includes to support the protection and maintenance of biodiversity in forest ecosystems and support to TFAP.

Output: At least two countries per region (Africa, Asia and Latin America and the Caribbean) with completed national plans and one regional plan for each of the three regions.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$1,200,000 (C1) $330,000 (C2)	Biodiversity (3.4.2) Capacity-building Environmental economics	 In kind In kind	FAO; ITTO; UNDP; regional and sub-regional organizations; regional economic commissions

3.3.3. **Description**: Training on environmental aspects of forest management including use of guidelines for assessment of forestry projects, reforestation and evaluation.

Output: At least 20 trainees per region (total of 60 trainees).

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$100,000 (C1) $50,000 (C2)	GEMS Capacity-building Environmental economics	In kind In kind In kind	FAO; UNDP; ITTO; ICRAF; regional economic commissions

3.3.4. **Description**: Assistance to developing countries on the inclusion and application of economic instruments for environmental management in national forest policies and planning.

Output: Technical assistance reports.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$280,000 (C1) $100,000 (C2)	Environmental economics Biodiversity Capacity-building	In kind In kind In kind	FAO; UNDP; UNIDO; ITTO; regional economic commissions; regional and subregional organizations

3.3.5. **Description**: Forestry and rural development, supporting PVOs as an interface between Governments and the local village communities for the protection and development of community forests, including reforestation.

Output: One hundred hectares of reforestation. Protection and development of three community forests.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$250,000 (C1) $150,000 (C2)	Capacity-building Support and cooperation	In kind In kind	UNDP; FAO; ICRAF; WWF; ESCAP; IUCN; KENGO

3.3.6. **Description**: Support to the next global forest assessment.

Outputs: Assessment of the state of forests globally and by continent and forest type.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$120,000 (C1)	GEMS (10.2.7) Earthwatch (10.1.7)	FAO; WCMC; IUCN

2. Programme element 3.3: overview of proposed resource allocation under subprogramme 3 (United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
3.3.1	800,000	0	840,000	1,640,000
3.3.2	1,200,000	330,000	0	1,530,000
3.3.3	100,000	50,000	0	150,000
3.3.4	280,000	100,000	0	380,000
3.3.5	250,000	150,000	0	400,000
3.3.6	120,000	0	0	120,000
Total	2,750,000	630,000	840,000	4,220,000

D. Programme element 3.4. Biological diversity

1. Activities

3.4.1 **Description:** Support for the early entry into force and effective implementation of the Convention on Biological Diversity, Caring for the Earth, the Global Biodiversity Strategy and MAB programme as key coordinating, catalysing and monitoring international mechanisms. Such support comprises:

(a) Interim secretariat for the Convention on Biological Diversity

Outputs: Secretariat services to the Convention on Biological Diversity.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$25,000 (C2) $100,000 (S)	Environmental law (7.1.3)	Governments; UNESCO; FAO; UNIDO; ICGEB; IUCN; WRI; WCMC; WWF; Governments: Switzerland

(b) Preparation and dissemination of revised guidelines for the preparation of biodiversity country studies, strategies and action plans

Outputs: Revised guidelines for the preparation of biodiversity country studies, strategies and action plans.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$75,000 (C1) $10,000 (C2)	Earthwatch (10.1)	In kind	UNESCO; FAO; UNDP; ICGEB; IUCN; WRI; WCMC; WWF; Governments: Canada, Sweden

(c) Assistance to 20 developing countries for the preparation of country studies on status, costs, benefits and unmet needs of biodiversity conservation and sustainable use of biological resources

Outputs: The outputs include:

(a) Twenty biodiversity country study reports;

(b) Baseline information on biodiversity status and socio-economic activities affecting or likely to affect it for national planning and management;

(c) A synthesis report of the studies.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$300,000 (C1)	Soils (3.1.6)	In kind	UNESCO; FAO; UNDP;
$70,000 (C2)	Oceans (4.1)	In kind	UNIDO; IUCN; WRI; WCMC;
$100,000 (S)	Earthwatch (10.1)	In kind	ECLAC; WWF; ESCAP; ECA;
	Capacity-building (11.1)	In kind	Governments: Canada,
	Support and cooperation	In kind	Germany, Japan, Sweden, UK

(d) Assistance to 10 developing countries for the formulation and implementation of national biodiversity strategies and action plans to integrate biodiversity conservation into national planning and management of biological resources

Outputs: Preparation and initiation of the implementation of biodiversity strategies and action plans by 10 countries.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$300,000 (C1)	Forests (3.3.4)		UNESCO; FAO; UNDP; IUCN
$70,000 (C2)	Oceans (4.1)	In kind	WRI; WCMC; WWF;
$100,000 (S)	Environmental economics (6.1)	In kind	regional economic commissions;
	Environmental law (7.1)	In kind	Governments: Canada, Sweden,
	Support and cooperation	In kind	Germany

(e) Support for the establishment of a global network for monitoring, including monitoring of threats, and auditing of biodiverity based upon the results of biodiversity country studies and making available information for decision-making

Outputs: Global biodiversity network, as a management tool to national, regional and international policy makers.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$140,000 (C1)	Oceans (4.1)	In kind	UNESCO; FAO; IUCN; WRI;
$35,000 (C2)	Earthwatch (10.1)	In kind	WCMC; WWF; Governments;
$100,000 (S)	(10.5)	In kind	ESCAP; ECA
	Support and cooperation (10.5)	In kind	

(f) Support for training of 50-60 taxonomists and parataxonomists from developing countries on methodologies for baseline surveys and inventories

Outputs: Four regional training courses in parataxonomy.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$320,000 (C1)	Oceans (4.1)	In kind	FAO; UNESCO; IBPGR
$75,000 (C2)	Earthwatch (10.1)	In kind	
$100,000 (S)	Capacity-building (11.1)	In kind	
	Support and cooperation	In kind	

(g) Production and updating of world reports on biodiversity based upon national assessments

Outputs: Two reports assessing the status of global biodiversity.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$50,000 (C1)	Earthwatch (10.6.3)		UNESCO; FAO; World Bank;
$10,000 (C2)	(10.1.7	In kind	UNDP; WCMC; IUCN
	(10.2.10)	In kind	

(h) Preparation, publication and distribution of a biodiversity country studies newsletter

Outputs: Four issues of a biodiversity country studies newsletter.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$50,000 (C1)	Earthwatch (10.1)	In kind	FAO; WCMC; IUCN; UNESCO;
$10,000 (C2)	Capacity-building (11.1)	In kind	WWF
	Support and cooperation	In kind	

(i) Support to developing countries participation in workshops, meetings and activities related to biodiversity and the Convention

Outputs: Eighty developing countries enabled to participate in activities related to biodiversity and the Convention.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$350,000 (C1)	Oceans (4.2)	In kind	Governments; UNDP; FAO;
$95,000 (C2)	Environmental law (7.2)	In kind	UNESCO
	Earthwatch (10.1)	In kind	
	Capacity-building (11.1)	In kind	

(j) Technical reports on issues related to biodiversity in support of the Convention and its future protocols (e.g. economic implications and benefits, etc.)

Outputs: Three scientific, technical and legal reports/notes on various aspects of biodiversity.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$100,000 (C1)	Oceans (4.2)	In kind	UNIDO; ICGEB; WCMC; WRI;
$20,000 (C2)	Environmental economics (6.1)	In kind	WWF; GEF; FAO; IBPGR;
$100,000 (S)	Environmental law (7.1)	In kind	IUCN; UNESCO; ECLAC;
	Earthwatch (10.1)	In kind	Governments
	Support and cooperation	In kind	

(k) Support to the global biodiversity assessment

Outputs: A panel/committee for scientific/technical assessment of global biodiversity.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$80,000 (C1)	Earthwatch (10.1)	In kind	WCMC; IUCN; WWF; UNESCO;
$15,000 (C2)	(10.6)	In kind	FAO
	Support and cooperation	In kind	

3.4.2 **Description**: Support for regional and global programmes and action plans for conservation of plant and microbial genetic resources.

Outputs: Operational expanded global programme for collection/evaluation and conservation of plant genetic resources.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$200,000 (C1)	Forests (3.3.2)	In kind	FAO; IBPGR; IUCN; UNESCO;
$35,000 (C2)	Oceans (10.1)	In kind	MIRCENs
$100,000 (S)	Earthwatch (4.2)	In kind	
	Support and cooperation	In kind	

3.4.3 **Description**: Support for global and regional programmes and action plans for conservation and management of animal genetic resources.

Outputs: The outputs comprise:

(a) One global data bank and programme for conservation of domesticated animal genetic resources;

(b) Three regional data banks on livestock genetic resources;

(c) A worldwatch list of endangered species.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$230,000 (C1)	Oceans (4.1)	In kind	UNESCO; FAO; WWF; IUCN
$50,000 (C2)	Earthwatch (10.1)	In kind	
$100,000 (S)	Support and cooperation	In kind	

3.4.4 **Description**: Support for global and regional programmes and plans for natural and man-managed ecosystems and their genetic resources (wildlife, wildlands, AMCEN and Latin America and the Caribbean action plans, ESCAP, SPREP).

Outputs: The outputs comprise:

(a) Operational biosphere reserves;

(b) Operational biodiversity networks in Africa and Latin America;

(c) Two pilot projects for conservation and management of wildlands and their wildlife.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$300,000 (C1)	Water (2.1.1)	In kind	FAO; UNESCO; IUCN;
$80,000 (C2)	Forests (3.3.2)	In kind	Governments
	Support and cooperation (12.1)	In kind	

3.4.5 **Description**: Support to international and regional cooperation in furthering scientific and economic understanding of the importance of biological diversity and its functions in ecosystems.

Output: Two workshops and two reports on the functions and importance of ecosystems and species.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$160,000 (C1)	Environmental economics (6.1)	In kind	SCOPE; UNESCO; FAO; IUCN;
$40,000 (C2)	Capacity-building (11.1)	In kind	WWF; IBPGR; WRI; regional
$100,000 (S)	Support and cooperation (12.1.2)	In kind	economic commissions

3.4.6 **Description**: Training of 150 young scientists in genetic resources conservation, biological resources valuation and accounting and natural resources management.

Outputs: The outputs comprise:

(a) Three regional training courses on conservation of biological resources;

(b) Three regional training courses on economics of biological resources;

(c) One training manual on biological resources valuation and accounting.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$560,000 (C1)	Forests (3.3)	In kind	FAO; UNESCO; IBPGR; ECLAC;
$150,000 (C2)	Capacity-building (11.1.2.)	In kind	Governments
$180,000 (S)	Environmental economics (6.1)	In kind	

3.4.7 Rephased activities from the biennium 1992-1993.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$160,000 (C1)		
$40,000 (C2)	-	-

2. Programme element 3.4: overview of proposed resource allocation under subprogramme 3.4 (United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
3.4.1	1,765,000	435,000	600,000	2,800,000
3.4.2	200,000	35,000	100,000	335,000
3.4.3	230,000	50,000	100,000	380,000
3.4.4	300,000	80,000	0	380,000
3.4.5	160,000	40,000	100,000	300,000
3.4.6	560,000	150,000	180,000	890,000
3.4.7	160,000	40,000	0	200,000
Total	3,375,000	830,000	1,080,000	5,285,000

E. Programme element 3.5. Microbial resources and related biotechnologies

1. Activities

3.5.1 **Description:** Enhancing safety in biotechnology and developing international mechanisms for cooperation, through:

(a) Monitoring impact and risk assessment of applications of biotechnology

Outputs: Two meetings and two reports of the informal UNIDO/UNEP/WHO/FAO working group on Biotechnology Safety.

Proposed allocation under subprogramme 3.5	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$50,000 (C1)	Environmental health (5.3)	In kind	UNIDO; WHO; FAO; ICGEB;
$20,000 (C2)	Earthwatch (10.1.1)	In kind	MSDN (IRRO)
$10,000 (S)	(10.4.1)	In kind	

(b) Preparation of reports on environmental impact of emerging biotechnologies

Outputs: Two reports on the environmental impacts of selected emerging biotechnologies.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$50,000 (C1)		UNIDO; WHO; FAO; ICGEB;
$10,000 (C2)		MSDN (IRRO)
$10,000 (S)		

(c) Preparation of guidelines for the release of genetically modified and novel organisms into the environment and other biotechnology applications (ongoing)

Outputs: Guidelines/principles for the release of novel and genetically modified organisms in the environment.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$100,000 (C1)	Environmental law (7.1)	In kind	UNIDO; WHO; FAO; ICGEB;
$10,000 (C2)			MSDN (IRRO)
$10,000 (S)			

(d) Support to the development and operation of an international information resource on the release of organisms into the environment (IRRO)

Outputs: Operational international information resource on the release of organisms into the environment (IRRO).

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from other subprogrammes		Cooperating agencies/supporting organizations
$100,000 (C1) $25,000 (C2) $50,000 (S)	Earthwatch (10.5)	In kind	UNIDO; ICGEB; MSDN

(e) Training of 30 professionals in the use of IRRO (ongoing)

Outputs: Three regional training courses on the use of IRRO.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from other subprogrammes		Cooperating agencies/supporting organizations
$150,000 (C1) $35,000 (C2) $50,000 (S)	Capacity-building (11.1)	In kind	ICGEB; MSDN; IRRO

(f) Support to the MSDN

Outputs: Strengthened and expanded MSDN.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from other subprogrammes		Cooperating agencies/supporting organizations
$50,000 (C1) $10,000 (C2) $20,000 (S)	Earthwatch (10.1)	In kind	UNESCO; ICGEB; WDC; MIRCEN

(g) Training of 40 professionals and technicians in risk assessment and biotechnology safety

Outputs: Two regional training courses on biotechnology risk assessment.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$100,000 (C1) $30,000 (C2) $100,000 (S)	Capacity-building (11.1)	In kind	UNIDO; UNESCO; ICGEB

3.5.2 **Description:** Promotion of the development and application of biotechnologies for environmental management and protection, through:

(a) Support to regional MIRCENs and ICGEB for five pilot applications of environmentally sound biotechnologies for increased soil fertility, food and feed production, pest and vector control, waste and wastewater treatment, degradation of pollutants, mining and environmental management

Outputs: Five pilot applications of environmental biotechnologies in developing regions.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$200,000 (C1)	Soils (3.1)	In kind	UNIDO; ICGEB; MIRCENs;
$50,000 (C2)	Industry (9.1)	In kind	MSDN; FAO; UNESCO;
$100,000 (S)	Capacity-building (11.1)	In kind	Governments
	Support and cooperation	In kind	

(b) Training of 100 professionals and technicians in application of microbial biotechnologies

Outputs: Four regional training courses on environmental biotechnology.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from other subprogrammes		Cooperating agencies/supporting organizations
$300,000 (C1) $70,000 (C2)	Capacity-building (11.1.2)	In kind	UNIDO; ICGEB; MIRCENs; MSDN; FAO; UNESCO; Governments

(c) Expansion of the MIRCENs network (ongoing)

Outputs: The outputs comprise:

(a) One additional MIRCEN established in a developing region.

(b) One meeting for MIRCEN directors.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$150,000 (C1) $40,000 (C2) $50,000 (S)	Soils (3.1)	In kind	UNIDO; UNESCO; ICGEB

3.5.3 Rephased activities from the biennium 1992-1993.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$50,000 (C1)	-		-

2. Programme element 3.5: overview of proposed resource allocation under subprogramme 3 (United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
3.5.1	600,000	140,000	250,000	990,000
3.5.2	650,000	160,000	150,000	960,000
3.5.3	50,000	-	-	50,000
Total	1,300,000	300,000	400,000	2,000,000

F. Programme element 3.6. Lithosphere

1. Activities

3.6.1 **Description:** Supporting international research efforts aimed at improving the understanding of anthropogenic perturbations of the biogeochemical cycles of the earth system (rephasing from 1992-1993 biennium).

Output: Two synthesis reports, one on environmental problems related to the biogeochemical cycle of phosphorus and the other one on the flux of organic matter in the oceans and its relevance to the global carbon cycle.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$90,000 (C1) $20,000 (S)	Freshwater resources GEMS Atmosphere	In kind In kind In kind	SCOPE; IGBP

3.6.2 **Description:** Providing advice and support measures to governmental regulatory bodies on how to reduce water pollution caused by small-scale gold mining and large-scale bauxite mining.

Output: Strengthened regulatory bodies of Governments.

Proposed allocation under subprogramme 1	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$100,000 (C1) $25,000 (S)	Environmental health (5.4.5) Environmental law Freshwater resources	 In kind In kind	UNDP; ILO

3.6.3 **Description:** Provision of advice to developing countries on how to reduce environmental impacts of oil extraction.

Output: Two reports containing specific recommendations.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$50,000 (C1) $25,000 (S)	Industry, energy (9.1) (9.2)	In kind In kind	United Nations; UNDESD; ECA

3.6.4

Description: Supporting international research efforts on environmental management of groundwater resources.

Output: One comprehensive report.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$50,000 (C1)	Freshwater resources (2.1.5)		regional economic commissions;
$25,000 (S)	GEMS/water	In kind	United Nations; UNDP

3.6.5 **Description:** Supporting environmental management activities aimed at reducing environmental impacts of mining operations.

Output: Fifty officials trained in regulating mining operations; strengthened institutions; two case studies on how to reduce environmental impacts of open-cast mining sites.

Proposed allocation under subprogramme 3	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$100,000 (C1)	Capacity-building	In kind	UNESCO; ECE
$90,000 (C2)	Freshwater resources	In kind	
$25,000 (S)	Industry, energy (9.2)	In kind	

2. Programme element 3.6: overview of proposed resource allocation under subprogramme 3 (United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
3.6.1	90,000	0	20,000	110,000
3.6.2	100,000	0	25,000	125,000
3.6.3	50,000	0	25,000	75,000
3.6.4	50,000	0	25,000	75,000
3.6.5	100,000	90,000	25,000	215,000
Total	390,000	90,000	120,000	600,000

G. Total proposed resource allocation under subprogramme 3 (United States dollars)

Programme element	Core 1	Core 2	Supplementary	Total
3.1	2,210,000	510,000	680,000	3,400,000
3.2	10,079,000	1,946,000	1,980,000	14,005,000
3.3	2,750,000	630,000	840,000	4,220,000
3.4	3,375,000	830,000	1,080,000	5,285,000
3.5	1,300,000	300,000	400,000	2,000,000
3.6	390,000	90,000	120,000	600,000
Total	20,104,000	4,306,000	5,100,000	29,510,000

III. SYSTEM WIDE PROGRAMME

A. System wide strategy

The system-wide strategy is set out in the system-wide medium-term environment programme 1990-1995, paragraphs 108-111, 117-120, 127-128, 136-138, 145-146, 154-157, 163-165, 175-177 and 216-219.

B. Activities of the United Nations system and other organizations

1. Soils, agricultural lands and agrochemicals

FAO — Development of methods for agro-ecological evaluation of land/soil capabilities; application of mapping methods for the evaluation of present and potential land resources at global, regional and national levels. Implementation of field projects for the prevention and reversing of soil degradation. Conservation and rehabilitation of African lands.

Activities aim at improving soil fertility and its protection/conservation. They include work on integrated plant nutrition systems, including the use of all available sources of plant nutrients: mineral fertilizers, organic matter and biological nitrogen fixation, and the formulation of plant nutrition recommendations based on cropping systems instead of single crops. Priority is given to the transfer of technology to farm level.

Efficient use of all plant nutrients, soil and water resources to increase and sustain production of food; Improvement of plant productivity in IAEA saline soils and prevention of salinization.

FAO, IFAD, CGIAR — Research on soil management, particularly soil conservation in watersheds, appropriate practices in irrigation, alternatives to shifting cultivation and slash-and-burn agriculture, and improvements in soil fertility.

UNESCO — Maintenance of tropical soil fertility through manipulation of organic soil processes.

ISSS, ISRIC, FAO — Promotion and establishment of a world soils and terrain digital database.

IBSRAM — Sustainable management of tropical acid soils, vertisols, sulphate soils, and sloping lands.

ICIMOD — Erosion and sedimentation processes in mountain ecosystems.

ICRAF — Research into the maintenance and improvement of soil fertility through agroforestry systems.

IPCS — Preparation of internationally evaluated documents on pesticides; development and application of a multi-level training course for safe use of pesticides; guidelines for safe use of pesticides; guidelines for use of protocol for safety testing of biological control agents.

UNIDO — Significant ongoing activities in promotion of safe development and management of pesticides, including a network in the Asia region. Establishment of a network for safe development and management of agrochemicals in Afro/Arab region. Development of approaches for overall reduction in use of agrochemicals.

UNHCR — Promotes sustainable agricultural development within the context of refugee rural settlement projects.

2. Arid lands and desertification

UNDP — Support to the implementation of the Plan of Action to Combat Desertification (PACD) directly through financial support of UNSO and indirectly through relevant projects in many countries affected by desertification.

UNSO — Implements PACD on behalf of UNEP in 22 countries under its mandate, with financial support from UNDP and UNEP.

FAO — Implements PACD-related activities under a memorandum of understanding with UNEP in the Latin American and Caribbean Region, implements numerous relevant activities and projects (soil conservation, reforestation, integrated dryland development in all regions).

ESCAP — Promotion of research and training activities through the regional network of research and training institutions for desertification control in Asia and the Pacific (DESCONAP), National Action Plans for selected countries on desertification control, and assessment and mapping of desertification process in selected arid countries of the region.

ESCWA — Implements PACD-related activities with UNEP and FAO in the West Asian region.

WMO — Undertakes jointly with UNEP a comprehensive review of the interactions between desertification and climatic changes; follows up on desertification related research under a Commission on Agricultural Meteorology (CAgM) working group on extreme climate events.

UNESCO	Carries out relevant training activities in many countries and implements MAB projects.
World Bank	Implements PACD related activities in many countries including the establishment of environmental action plans for dryland regions.
WFP	Provides large-scale food for work used for activities related to anti-desertification measures and training.
UNDRO	Implements projects linking relief to dryland development.
United Nations	Assists in monitoring desertication processes, public awareness raising and provides technological inputs for promoting sustainable dryland development.
CILSS IGADD SADCC UMA ACSAD	Have a regional mandate focusing on anti-desertification activities.
ICRISAT ICRAF IITA ILCA ICARDA	CGIAR centres with substantive activities relevant to sustainable rural development in regions prone to desertification.
EC	Diagnostic studies, desertification control programmes and sustainable rural development.
UNIDO	Studies on charcoal fuel from cotton stalk, gasification technologies for biogas for industry. Implementation of projects to develop, manufacture and market fuel-efficient cooking stoves; similar promotion of the use of agricultural residues as alternative fuel.

3. Forests and other ecosystems

FAO	Implementation and coordination of the Tropical Forestry Action Plan. Activities in environmental impact assessment and conservation of forest ecosystems. Support to national institutes and Governments within the framework of Tropical Forestry Action Plan. Implementation of multinational projects on watershed management. Support to community forestry, research and training. Coordination in the development of technology methods, and procedures for FAO forest resources assessment. GIS to be included in assessments.
WMO	Support to studies of climate effects on agricultural and forest lands.
IUCN	Coordination and implementation of the forestry portion of national conservation strategies and use of guidelines for large-scale reforestation. Coordination in the use of biosphere reserves for integrated monitoring studies.
UNDP	Coordination in the development of national tropical forestry action plans and capacity-building.
UNESCO	Promotion and support to international network of field research, training and demonstration projects for sustainable management of forest and woodland ecosystems. Support to the Man and the Biosphere programme, including the designation and protection of biosphere reserves.
ECE	International cooperation programme on assessment and monitoring of forests in Europe and North America. Collaboration on assessment of forests in developed countries.
UNIDO	Promotion of the use of agricultural residues by the use of such wastes as domestic fuels. Included are marketing and techno-economic studies in alternative energy technologies, in the pulp and paper programme, increasing operational efficiency of mills, reduction of pressure on wood pulp and encouragement of the use of more non-wood fibres such as bagasse, straw, jute, kenaf and recycling of waste paper. Promotion of consistent timber design codes, regional cooperation in development of plantation-based forest industries, and assistance to furniture industries.
ILO	Provides policy advise and implementation support related to training, forest-based employment, working conditions and occupational safety and health.
ICRAF	Deforestation - alternatives to slash-and-burn agriculture.
UNHCR	Promotes forestry and energy saving projects to decrease negative environmental impact caused by the presence of large refugee concentrations.

4. Biological diversity

UNESCO	Strengthening and expansion of the MIRCEN network. Implementation of those parts of the World Heritage Convention related to natural sites. Improvement of the international network of biosphere reserves under the revamped MAB programme with the guidance of the Advisory Committee for Biosphere Reserves. Training of biosphere reserve managers and exchanges within the network. Special attention to using biosphere reserves as tools for implementing specific programmes such as the Diversitas programme on function,

maintenance and inventorying and monitoring of biodiversity jointly with SCOPE and IUBS, and the people and plants programme on ethnobotany with WWF and Kew Gardens (United Kingdom). Support to the provisional implementation of the Convention on Biological Diversity.

FAO — Development and implementation of global programmes for the conservation and use of genetic resources for agriculture including animals, fish, forests and plants.

UNIDO — Through both UNIDO and ICGEB, an important area of activity is the promotion of marine biotechnology (molecular biodiversity). Participation in expert group meetings and other activities in support relevant aspects of the Convention on Biological Diversity.

ECE — Promotion of the European Red List of Globally Threatened Animals and Plants, including recommendations on its application, as well as the lists of species of particular conservation concern in Europe.

ESCAP — Human resources development in conservation and management of protected areas in Asia and the Pacific. Conservation of wild Asian elephants.

IBPGR — Strengthening of the world network of gene banks for conservation of plant genetic resources.

IUCN
WWF — Preparation by the World Conservation Monitoring Centre (joint IUCN/UNEP/WWF partnership) of databases and world reports on sites critical to the conservation of biological diversity, protected areas, endangered and key species, trade and utilization of wildlife and wildlife products. Provision of advice on priority areas for protection under the Convention on Biological Diversity, World Heritage Convention and other relevant conventions and national efforts. Support to provisional implementation of the Convention on Biological Diversity. Promotion of the formulation and implementation of national and regional conservation strategies and action plans.

WRI — Promotion of the implementation of the global biodiversity strategy and action plan.

ACI — Promotion of field research and training in national resources management and other aspects of biological diversity.

5. Microbial resources and related biotechnologies

UNESCO
WHO — Promotion of efforts aimed at pollution control through appropriate waste management incorporating biodegradation of pollutants and destruction of pathogens.

UNIDO
FAO
UNU — Promotion of microbial technologies for utilization of agricultural, agro-industrial and organic urban residues for the production and UNIDO, nutritional enrichment of food and for energy conversion; promotion of microbial technologies for biodegradation of environmental pollutants.

FAO
WHO
UNESCO — Development, testing, application and dissemination of information on microbiological pest and vector control agents.

FAO
UNDP — Broader application and coordination of microbial technologies for soil fertility in agriculture and forestry, particularly through symbiotic and IAEA non-symbiotic nitrogen fixation in tropical and subtropical environments (Section 1 above on (soils))

UNIDO — Continued review and assessment of the environmental impact of emerging technologies, particularly in the areas of genetic and engineering biotechnology in cooperation with WHO and ILO; development of risk assessment methodology and safety guidelines for application of genetically engineered organisms and assisting member States in adapting these guidelines to their own needs; promotion of training in research and application of genetic engineering through the International Centre for Genetic Engineering and Biotechnology. Support to the work of the informal UNIDO/UNEP/WHO/FAO working group on biotechnology safety and the preparation of a voluntary code of conduct on the release of genetically modified organisms in the environment. Through the informal working group on biotechnology safety, UNIDO, in cooperation with UNEP, WHO and FAO, has made significant contributions in this area. The voluntary code of conduct on release of organisms into the environment developed by UNIDO could form a basis for the application of biotechnology in using bioresources for industrial development in an ecologically sustainable manner. UNIDO is also planning to start a biosafety information network and advisory service to assist developing countries, upon request, in biosafety matters.

WHO — Compiling and evaluating information on microbial resources and technologies with respect to food safety, management and control of insect and rodent vectors of disease and for reduction of selected waste material.

FAO,
IAEA — Assistance to developing countries in using mutation breeding for genetic improvement of basic food, oil-seed and industrial crops; maintenance of a databank on mutant germplasm and induced mutant-derived cultivars.

ECE — Collection of information on existing safety guidelines in biotechnology, including existing laws and regulations.

ESCAP	Promotion of regional cooperation in capacity building for transfer, application and commercialization of agricultural, medical, industrial/environmental biotechnology, involving provision of assistance to conduct regional reviews and arrange regional mechanisms to identify common problems and define remedial measures for intellectual property rights, assessment, and manpower training issues.

6. Lithosphere

UNESCO	Conduct of international scientific programmes related to the lithosphere, its resources and the impact of their exploitation on the environment, such as the International Geological Correlation Programme and the International Lithosphere Programme; regional geological studies; preparation of geological and geochemical maps on international and national scales and maps of geological factors influencing the environment; training of specialists in these fields.
United Nations	Technical assistance in the evaluation and solution of environmental impacts caused by mining activities. Treatment of solid and liquid mining wastes. Identification of geologically-safe mine waste disposal sites. Development of environmental guidelines for mining activities and formulation of mine-safety and environmental protection regulations.
ECA	Technical assistance to member States for the environmental management of mineral resources exploration processes and rehabilitation of mined-out sites.
ILO	Technical assistance concerning improvement of occupational safety and health conditions and labour inspection in mines.
ECE	Studies on environmental aspects of open-cast mining; treatment of water from open-cast mines; environmental protection in underground mining areas.

SUBPROGRAMME 4. ENVIRONMENTAL MANAGEMENT OF OCEANS AND COASTAL AREAS MANAGEMENT

I. PROGRAMME STRATEGY OF UNEP

A. Strategy

1. The strategy, targeted through the UNEP regional seas programme, is:

(a) To foster acceptance and application within a reasonable time frame of the concept of integrated coastal area planning and management with particular emphasis on mitigation and/or elimination of environmental degradation caused by land-based sources of pollution and human activities as they otherwise adversely affect the coastal and marine environment, with special reference to small islands;

(b) To carry out the above on the basis of sound environmental economics for the coastal and marine areas, and practical natural resource accounting related to the rich resources present in such areas;

(c) To accomplish the above at the regional level with effective involvement, cooperation and support of relevant UNEP units, United Nations agencies and international organizations, bearing in mind the inherent linkages with national priorities and global obligations, and the benefits arising from strong interregional cooperation.

B. Legislative authority

2. The legislative authority for the subprogramme derives from the revised United Nations medium-term plan (A/47/6/Rev.1), programme 16 (Environment), General Assembly resolutions 44/206, 44/225 and 44/228, Governing Council decisions 11/7, part four and part eight, section A, paragraph 1 (f), 11/8, paragraph 2 (d), 11/9 paragraph 2 (b), 12/12, sections I, VIII and IX, 12/17 C, paragraph 3, 12/17 D, paragraphs 6 (a) and (c), 13/18, section II, 13/25, 13/32, 14/13, 14/21, paragraph 4, 15/1, section IV, 15/25-15/27 and 16/23, Agenda 21, chapter 17 and paragraph 38.22; and the Rio Declaration, principles 2, 13, 14, 18 and 19.

C. Agenda 21 priorities for UNEP

3. In the context of sustainable development, the Agenda 21 priorities for UNEP include, increased emphasis on integrated coastal area management; control of pollution from land-based sources and the impacts of human activities; protection and development of small islands and their ecosystems; development and implementation of suitable policies and mitigative measures against expected impacts of climate change and sea-level rise; the application of environmental economics and natural resource accounting; and sustainable use and conservation of marine living resources. Emphasis will be laid on the need for enhanced cooperation within UNEP, including its regional offices, United Nations agencies and other relevant institutions, as well as the strengthening of interregional and intraregional cooperation.

II. PROGRAMME ELEMENT

A. Programme element 4.1. Regional marine environments

1. Activities

4.1.1 **Description:** Coordination of the oceans and coastal areas programme and initiation of new action plans. Coordination of the regional seas action plans and related activities including coordination of activities related to integrated coastal area planning and management, continued support to monitoring, assessment and control of marine pollution from various sources, and support to and supervision of related training and capacity-building to respond to the requirements of chapter 17 of Agenda 21. Overall coordination of OCA/PAC global activities in association with other cooperating United Nations agencies and international organizations with mandate/activities relevant to protection, development and management of the marine environment and coastal areas and their living resources, as well as the impacts of climate change. This includes annual inter-agency consultations on the oceans and coastal area programme outlining areas of mutual interest with cooperating agencies during the biennium 1994-1995.

Outputs: As reflected in the various activities under programme element 4.1 leading to the advancement of the regional seas programme, global ocean assessments and monitoring and the protection and management of marine living resources.

Proposed allocation under subprogramme 4	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$4,000,000 (C1) $350,000 (S)	Atmosphere	In kind	Direct implementation
	Biodiversity	In kind	
	Environmental economics	In kind	
	Environmental law	In kind	
	Energy	In kind	
	GEMS	In kind	
	INFOTERRA	In kind	
	IRPTC	In kind	
	GRID	In kind	
	SOE	In kind	
	Capacity-building	In kind	

4.1.2 **Description**: Support to the Mediterranean Action Plan, including:

(a) Development and implementation of integrated coastal area management programmes in Albania, Egypt, Tunisia, Algeria and Morocco;

(b) Implementation of national marine pollution monitoring programmes, contingency plans and establishment of port reception facilities. Assessment of marine pollution and proposed common measures for substances listed in land-based sources protocol. Preparation of protocol on combating pollution from offshore exploration and protocol on hazardous wastes in the Mediterranean;

(c) Implementation of Genoa Declaration and Nicosia Charter in four Mediterranean States selected as pilot areas for development and implementation of sustainable development programmes;

(d) Continued provision of fellowships, equipment and technical assistance to participants in the Action Plan. Further development and implementation of action plans for endangered species (turtles, Monk seals and cetaceans);

(e) Organization of meetings of Contracting Parties to the Barcelona Convention and related protocols; meetings of the Bureau of the Contracting Parties and meetings of national focal points for the Mediterranean Action Plan.

Outputs: Integrated coastal area management programme reports, report on the assessment of marine pollution, and meeting reports.

Proposed allocation under subprogramme 4	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$97,000 (C1) $50,000 (S)	Environmental economics (6.1.2)	In kind	FAO; IOC/UNESCO; WHO; WMO; IEA; UNIDO; IUCN; EEC; EIB; World Bank
	Environmental law (7.1.2) (7.1.5)		
	GEMS (10.2.11)		
	GRID (10.5.5)		
	Capacity-building (11.1.1)	In kind	

4.1.3 **Description**: Support to the Kuwait Action Plan, including:

(a) Further analysis and assessment of the long-term environmental consequences of the war in the region for the marine and terrestrial environments and the atmosphere on the basis of the results of the Mount Mitchell open sea cruise in the ROPME sea area to prepare for the international Conference on the environmental consequences of the war, Teheran, Iran, November 1994;

(b) Establishment of training programmes for regional experts on the rehabilitation of the marine environment and coastal ecosystems, integrated coastal area management, marine pollution control and contingency planning.

Output: Report of the analysis and assessment of the long-term environmental consequences of the war.

Proposed allocation under subprogramme 4	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting supporting organizations
$97,000 (C1) $50,000 (S)	Environmental economics (6.1.2)	In kind	IOC/UNESCO; WMO; WHO; IMO; IEA; UNIDO; IUCN; FAO; UNDP; World Bank; ROPME; ESCWA
	GEMS (10.2.11)		
	GRID (10.5.5)		
	Capacity-building (11.1.2)	In kind	

4.1.4 **Description**: Support to the Caribbean Action Plan, including:

(a) In-depth evaluation of the progress of the programme and development of draft strategy for the period 1996-2001;

(b) Establishment of regional coordinated programme on integrated coastal area management and supporting training programmes;

(c) Development of specific guidelines for improved management of protected areas and wildlife;

(d) Development of draft protocols on land-based sources of pollution and transboundary movement of hazardous wastes; assessment of types and amounts of non-point land-based sources of marine pollution; assessment and control of marine pollution, integrated planning and institutional development;

(e) Formulation of master plans on selected areas of heavily contaminated bays and coastal areas;

(f) Strengthening training programmes at the national and regional levels, aimed at improving technical and managerial skills of decision makers responsible for the management of marine and coastal resources; inclusion of environmental matters in school curricula;

(g) Organization of the Conference of Plenipotentiaries, the twelfth and thirteenth meetings of the Monitoring Committee (1994 and 1995), and the seventh intergovernmental meeting (1994).

Outputs: Report of the progress of the programme; 100 people to be trained; guidelines for improved management of protected areas and wildlife; master plans on heavily contaminated bays and coastal areas, and meeting reports.

Proposed allocation under subprogramme 4	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$455,900 (C1) $200,000 (S)	Biodiversity (3.4.2) Energy and environment (9.1) GEMS (10.2.11) GRID (10.5.5) Capacity-building (11.1.1) (11.1.2)	In kind In kind In kind	ECLAC; FAO; IOC/UNESCO; WHO; PAHO; IMO; CCA; CARICOM; OAS; IAEA; World Bank; IADB; Governments; IUCN; WIDECAST

4.1.5 **Description:** Support to the West and Central African Action Plan, including:

(a) Development of a draft protocol for the protection of the marine and coastal environment from land-based sources of pollution (WACAF/5) (ongoing);

(b) Establishment of regionally coordinated marine pollution monitoring programme (WACAF/1 and WACAF/2) (ongoing); technical backstopping to the AMCEN committees on islands and seas; pollution assessment programme, including land-based sources of pollution (WACAF/4) 'ongoing); assessment and control of coastal erosion (WACAF/3), including pilot project on remedial actions to combat coastal erosion (ongoing); identification and establishment of specially protected areas (WACAF/8) (ongoing);

(c) Development of national reports on the status of marine mammals with recommendation for management (WACAF/9) (ongoing);

(d) Organization of the eighth and ninth meetings of the Steering Committee for the marine environment of West and Central Africa (1994 and 1995) and the fourth and fifth meetings of the Contracting Parties to the Convention for Cooperation in the Protection and Development of the Marine and Coastal Environment of West and Central Africa (1994 and 1995).

Outputs: National reports on status of marine mammals; meeting reports.

Proposed allocation under subprogramme 4	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$582,000 (C1) $200,000 (S)	Environmental law (7.1.2 (a) Biodiversity (3.4.1 (j)) GEMS (10.2.11) GRID (10.5.5)	IMO; IOC/UNESCO; IUCN; FAO; IAEA; UNESCO; OAU; World Bank; IDB; AfDB; EEC; GESAMP

4.1.6 **Description:** Support to the Eastern African Action Plan, including:

(a) Development and implementation of integrated management plans for marine and coastal areas, monitoring of coastal resources, pilot projects on environmental impact assessment (ongoing); organization of training programmes on integrated coastal area management and coastal erosion control (ongoing); initiation of pilot projects on coastal erosion control; and development of marine and coastal environmental resources atlas and database;

(b) Site-specific marine pollution research and monitoring programme (ongoing); training programme on marine pollution monitoring; development of contingency plans for marine emergencies (ongoing); public awareness promotion programme (ongoing);

(c) Organization of bureau and intergovernmental meetings;

Outputs: Four integrated coastal management plans (4); case-study on environmental impact assessment; training on coastal erosion control (14 participants); pilot projects on coastal erosion control (2); marine and coastal database (2 country sets); and contingency plans for marine emergencies (2).

Proposed allocation under subprogramme 4	**Interlinkages with, and inputs from, other subprogrammes**		**Cooperating agencies/supporting organizations**
$540,000 (C1) $250,000 (S)	Environmental economics (6.1.2) Environmental law (7.1) GEMS (10.2.11) GRID (10.5.3) Capacity-building (11.1.1) (11.1.2)	In kind In kind In kind In kind	FAO; IOC/UNESCO; IMO; WHO; IUCN; ECA; EC; AfDB

4.1.7 **Description:** Support to the East Asian Seas Action Plan, including:

(a) Development of integrated coastal area management programmes. Establishment of coastal and marine environmental resources database;

(b) Support for the Association of South East Asian Marine Scientists (ASEAMS);

(c) Organization of meetings of the coordinating body on the seas of East Asia (COBSEA) and meeting of experts.

Outputs: Technical report on the establishment of coastal and marine environmental resources database; meeting report and technical report on the development of integrated coastal area management programme; reports of the COBSEA meeting and the EAS experts meeting on the Action Plan; four issues of the Laut newsletter.

Proposed allocation Under subprogramme 4	**Interlinkages with, and inputs from, other subprogrammes**		**Cooperating agencies/supporting organizations**
$543,000 (C1) $200,000 (S)	Environmental law (7.1.5) GEMS (10.2.11) GRID (10.5.5) Capacity-building (11.1.1) (11.1.2)	 In kind In kind	IOC/UNESCO; IMO; IAEA; WHO; ESCAP; IUCN; UNDP; AsDB; ASCOPE; ASEAMS

4.1.8 **Description:** Support to the Red Sea and Gulf of Aden Action Plan, including:

(a) Revitalization of the regional coordinating structure;

(b) Development of national contingency plans for marine emergencies;

(c) Strengthening of network of national institutions in the region to participate in a regionally coordinated marine pollution monitoring programme;

(d) Identification of new protected areas and policy guidance on the protection of their biological diversity;

(e) Assessment of areas vulnerable to predicted sealevel rise as a consequence of projected climate change.

Outputs: Contingency plans for marine emergencies; policy guidelines on protection of new protected areas; report on the assessment of areas vulnerable to sealevel rise.

Proposed allocation under subprogramme 4	**Interlinkages with, and inputs from, other subprogrammes**		**Cooperating agencies/supporting organizations**
$97,000 (C1) $50,000 (S)	Atmosphere (1.1.3) Biodiversity (3.4.1 (h)) Environmental law (7.1.4 (a)) GEMS (10.2.11) GRID (10.5.4) Capacity-building (11.1.1) (11.1.2)	 In kind In kind	IOC/UNESCO; IMO; IAEA; FAO; IUCN; UNDP; World Bank; PERSGA; ESCWA

4.1.9 **Description:** Support to the South Pacific Action Plan, including:

(a) Implementation of integrated coastal area management case-study, marine pollution monitoring, assessment and control (ongoing);

(b) Implementation of climate change and sealevel rise programmes (ongoing);

(c) Ocean-related environmental education, training and information programmes (ongoing);

(d) Organization of intergovernmental meetings.

Outputs: Integrated coastal area management case-study; meeting reports.

Proposed allocation under subprogramme 4	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$504,000 (C1) $100,000 (S)	Atmosphere (1.1.3) GEMS (10.2.11) GRID (10.5.4) Capacity-building (11.1.1) (11.1.2)	In kind In kind In kind	SPC; SPOCC; ESCAP; World Bank; UNDP; EEC; ACP countries; FAO; IOC; WESTPAC; USP; ASPEI; UNCTAD; SPREP

1.10 **Description:** Support to the South-East Pacific Action Plan, including:

(a) Geographic extension of the Action Plan (ongoing); surveys of the state of the marine environment in the region;

(b) Implementation of coastal area management plans developed at critical sites (ongoing); case-studies on environmental impact assessment, training, and intercalibration exercises; preparation of management plans for marine protected areas;

(c) Expansion of marine pollution monitoring and control programme;

(d) Preparation of a protocol on the assessment of environmental impact in the South-East Pacific;

(e) Establishment of national contingency plans to control marine pollution in cases of emergencies (ongoing), and land-based sources of marine pollution inventories.

Outputs: Three reports on surveys on the state of the marine environment; case-studies on environmental impact assessment, training and intercalibration exercises; inventories on land-based sources; management plans for marine protected areas.

Proposed allocation under subprogramme 4	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$504,400 (C1) $150,000 (S)	Environmental law (7.1.4 (a)) (7.1.5) GRID (10.5.5) Capacity-building (11.1.1) (11.1.2)	 In kind In kind In kind In kind	IOC/UNESCO; IMO; WHO; PAHO; IEA; IUCN; ECLAC; CPPS; WMO;

1.11 **Description:** Support to the South Asian Seas Action Plan. It is proposed that the South Asian Seas regional programme be expanded into an Indian Ocean Basin-wide Experiment (IOBE) in interregional cooperation for a period of three years. The experiment would link Indian Ocean rim States, stretching from western Australia to southern Africa, with a focus on integrated coastal area management, mitigation and control of marine pollution from all sources and integrated fisheries management. Activity elements include:

(a) Based on consultation with United Nations agencies and international organizations active in the wider region, development of interregional coordinative structure leaving intact existing regional arrangements;

(b) Establishment of an interim Regional Coordinating Secretariat (RCS) and computerized regional data system similar to the operational system in Kuwait;

(c) Organization of meetings of United Nations agencies and international organizations, meetings of participating States, and workshops on integrated coastal area management, mitigation and control of marine pollution, and integrated fisheries management.

Outputs: Technical report on the preparation of the interim Regional Coordinating Secretariat (RCS); reports of meetings of United Nations agencies and international organizations; as well as report of the meeting of participating States; workshop reports.

Proposed allocation under subprogramme 4	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$242,500 (C1) $150,000 (S)	Environmental law (7.1.2 (a)) GEMS (10.2.11)	In kind	IOMAC; UNDP; IMO; IOC/UNESCO; IUCN; WHO; IAEA; AsDB.

4.1.12 **Description:** Support to the Black Sea Action Plan, including:

(a) Report on the status of implementation of the Ministerial Declaration on the Protection of the Black Sea; organization of a ministerial meeting to consider any actions required to enhance formulation or to amend the Declaration;

(b) Work on a protocol to the Bucharest Convention on the transboundary movement of toxic wastes and on cooperation to stop their illegal movement to the Black Sea;

(c) Development and implementation of a regionally coordinated trend-monitoring system for substances which have been identified as threatening or likely to threaten the sustainable development of the Black Sea environment;

(d) Training of personnel on integrated coastal area planning and management.

Outputs: Status report and report of the ministerial meeting.

Proposed allocation under subprogramme 4	**Interlinkages with, and Inputs from, other subprogrammes**		**Cooperating agencies/supporting organizations**
$339,500 (C1) $150,000 (S)	Environmental law (7.1.5) GEMS (10.2.11) GRID (10.5.5) Capacity-building (11.1.1) (11.1.2)	In kind In kind In kind	World Bank; UNDP; IOC/UNESCO; IMO; IAEA; FAO; WHO; Governments

4.1.13 **Description:** Support to the North-West Pacific Action Plan, including:

(a) Provision of a secretariat and coordinating functions for the approval and implementation of the Action Plan;

(b) Survey of national environmental legislation, objectives, strategies and policies;

(c) Project proposals for a geographic information system (GIS) for the coastal and marine environment of the North-West Pacific region;

(d) Establishment of a collaborative, regional database and monitoring programme, targeted to specific indicative parameters, and undertaken according to agreed, consistent procedure;

(e) Training of personnel on integrated coastal area planning and management;

Outputs: Report on survey of national environmental legislation, objectives, strategies and policies; regional database and monitoring programme.

Proposed allocation under subprogramme 4	**Interlinkages with, and inputs from, other subprogrammes**		**Cooperating agencies/supporting organizations**
$417,100 (C1) $200,000 (S)	GRID (10.5.5) Capacity-building (11.1.1) (11.1.2)	 In kind In kind	IOC/UNESCO; IMO; UNDP; IAEA; AsDB; Governments

4.1.14 **Description:** Interregional and public information, including:

(a) Regional cooperation in areas of common interest, particularly those relevant to Agenda 21 priority areas including marine pollution, assessment and control integrated coastal zone management, environmental impact assessment, national and regional legal assistance, and economic assessments and management measures; assistance with the special environmental problems of small islands.

(b) Support for participation in international meetings; interregional intercalibration activities; interregional course on analytical techniques for marine pollution studies; interregional seminars on environmental impact assessment;

(c) Preparation of technical reports, global, regional and subject specific directories and bibliographies relevant to oceans and coastal areas, and newsletters, films, booklets and other materials for the general public;

(d) Organization of meetings of the Committees on Seas and Islands of the African Ministerial Conference on the Environment, interregional seminars, particularly in the Indian Ocean region, and consultations among agencies and secretariats.

Outputs: Technical reports; directories and bibliographies; newsletters; films; booklets; meeting reports.

Proposed allocation under subprogramme 4	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,250,000 (C1) $500,000 (S)	Environmental law (7.1.5)	In kind	All relevant agencies and international, regional and non-governmental organizations
	GRID (10.5.5)		
	Capacity-building (11.1.1)	In kind	
	(11.1.2)	In kind	

2. Programme element 4.1: overview of proposed resource allocation under subprogramme 4
(United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
4.1.1	4,000,000	0	350,000	4,350,000
4.1.2	97,000	0	50,000	147,000
4.1.3	97,000	0	50,000	147,000
4.1.4	455,900	0	200,000	655,900
4.1.5	582,000	0	200,000	782,000
4.1.6	540,000	0	250,000	790,000
4.1.7	543,200	0	200,000	743,200
4.1.8	97,000	0	50,000	147,000
4.1.9	504,400	0	100,000	604,400
4.1.10	504,400	0	150,000	654,400
4.1.11	242,500	0	150,000	392,500
4.1.12	339,500	0	150,000	489,500
4.1.13	417,100	0	200,000	617,100
4.1.14	1,250,000	0	500,000	1,750,000
4.1.15	0	0	0	0
Total	9,670,000	0	2,600,000	12,170,000

B. Programme element 4.2. The global marine environment

1. Activities

4.2.1 **Description:** Marine pollution monitoring and assessment, including:

(a) Integration and harmonization of marine pollution monitoring and assessment programme established in the framework of the joint IOC-UNEP Global Investigation of Pollution in the Marine Environment (GIPME) and in the context of the Global Ocean Observing System;

(b) Review of the effects of development projects on the marine environment with particular emphasis on the ecological consequences of low-level marine contamination, domestic sewage and industrial effluents;

(c) Recommendations on marine pollution control measures to be developed on the basis of the results of the regional marine pollution monitoring programmes in the regional seas areas;

(d) Preparation of technical reports on the sessions of the joint advisory groups of experts on methods, standards and intercalibration (GEMSI), on effects of pollutants (GEEP) and on standards and reference materials (GESREM);

(e) Preparation and production of new reference methods and materials for marine pollution studies for distribution to laboratories participating in the monitoring programmes;

(f) Provision to States, through IMO/FAO/UNESCO/WMO/IAEA/United Nations/UNEP Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP), of the periodic review of the state of the marine environment and of the scientific advice on the implementation of chapter 17 of Agenda 21.

Outputs: Marine pollution control guidelines; technical reports; reference methods and materials published and distributed; state-of-the-marine environment review.

Proposed allocation under subprogramme 4	**Interlinkages with, and inputs from, other subprogrammes**		**Cooperating agencies/supporting organizations**
$150,000 (C1)	Atmosphere (1.1.3)	In kind	IOC/UNESCO; WMO; IMO; IAEA;
$1,100,000 (C2)	Biodiversity (3.4.1 (e))		FAO; IUCN; United Nations; WHO
$200,000 (S)	Energy and evironment (9.1)	In kind	
	GEMS (10.2.12)	In kind	
	GRID (10.5.5)		
	SOE (10.6.6)		
	Capacity-building (11.1.1)	In kind	
	(11.1.2)	In kind	

4.2.2 **Description**: Fostering the acceptance and application of integrated coastal area management (ICAM) at global and regional levels as follows:

(a) At the global level. A global strategy document joint prepared by UNEP (OCA/PAC)/FAO and the World Bank, with input from international organizations, will be updated annually as experience from the site-specific activities carried out within a regional context becomes available. A series of regional seminars will be held for key senior officials subsequent to the world-wide distribution of the ICAM strategy document, to further enhance understanding of the need for and the benefits arising from ICAM. A manual on an integrated approach to the protection against marine pollution from land-based sources as one of the prime issues in ICAM to be prepared and published;

(b) At the regional level. Preparation and implementation of land- and water-use and siting policies; implementation of integrated coastal and marine management and sustainable development plans and programmes at appropriate levels and in specific sites; preparation of coastal profiles identifying critical areas, including eroded zones, physical processes, development patterns, user conflicts and specific priorities for management in specific sites; prior environmental impact assessment, systematic observation and follow-up of major projects, including the systematic incorporation of results in decision-making; conservation and restoration of altered critical habitats in specific areas; human resource development and training; public education, awareness and information programmes.

Outputs: The outputs comprise:

(a) At the global level. Global strategy document on integrated coastal area management programme (ICAM); manual on integrated approach to protection against marine pollution from land-based sources;

(b) At the regional level. Land and water-use and siting policies; plans on integrated coastal and marine management as well as sustainable development plans; coastal profiles.

Proposed allocation under subprogramme 4	**Interlinkages with, and inputs from, other subprogrammes**		**Cooperating agencies/supporting organizations**
$350,000 (C2)	Atmosphere (1.1.3)	In kind	FAO; World Bank; UNDOALOS;
$50,000 (S)	GEMS (10.2.6)		UNDP; international organizations
	Capacity-building (11.1.1)	In kind	
	(11.1.2)	In kind	

4.2.3 **Description**: Fostering the development, acceptance and application of appropriate environmental economics, based on natural resource accounting for coastal areas, including the conduct of a study on cost/benefits of mitigation and control of marine pollution and a comprehensive case-study of integrated coastal management for small islands. Likewise, similar studies in the South Pacific, with cooperation from the American Government (NOAA), and in the Indian Ocean are to be carried out.

Outputs: Case-studies on integrated coastal management of small islands.

Proposed allocation under subprogramme 4	**Interlinkages with, and inputs from, other subprogrammes**		**Cooperating agencies/supporting organizations**
$50,000 (C2)	Environmental economics (6.1.2)	In kind	United Nations specialized
	Support and cooperation (12.1)	In kind	agencies and regional commissions

4.2.4 **Description**: Assessment of the potential impacts of climate change on the coastal and marine environment as well as on socio-economic activities and structures, particularly in low-lying coastal areas and small islands vulnerable to accelerated sealevel rise. Development of suitable policy options and response measures identified on the basis of the global assessment and recommended to concerned Governments for implementation. Follow-up on the implementation of the adopted mitigative measures.

Outputs: Reports, policy options and response measures.

Proposed allocation under subprogramme 4	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$450,000 (C2) $50,000 (S)	Atmosphere (1.1.3) GEMS (10.2.2) GRID (10.5.4)	$30,000 (C1) In kind	IOC/UNESCO; WMO; UNCHS; IPCC

4.2.5 **Description**: Support for and participation in international activities related to global/intergovernmental conferences recommended in chapter 17 of Agenda 21, particularly paragraphs 17.26, on the intergovernmental meeting on protection of the marine environment from land-based activities, including the possible review of the Montreal Guidelines for the Protection of the Marine Environment against Pollution from Land-Based Sources and the development of a global programme of action, regional protocols and national plans of action, and 17.131, on the first global conference on the sustainable development of small island developing States.

Outputs: Regional surveys on land-based sources of pollution; national plans of action for the control of land-based sources of pollution; meeting reports.

Proposed allocation under subprogramme 4	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$100,000 (C2)	Environmental law (7.1.4)	$960,000	IMO; IOC/UNESCO; FAO

2. Programme element 4.2: overview of proposed resource allocation under subprogramme 4 (United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
4.2.1	150,000	1,100,000	200,000	1,450,000
4.2.2	0	350,000	50,000	400,000
4.2.3	0	50,000	0	50,000
4.2.4	0	450,000	50,000	500,000
4.2.5	0	100,000	0	100,000
Total	150,000	2,050,000	300,000	2,500,000

C. Programme element 4.3. Living marine resources

1. Activities

4.3.1 **Description**: Coordination of the Marine Mammals Action Plan, including:

(a) Survey and compilation of marine mammal national legislation for West Africa, South-East Pacific and South-West Atlantic. Preparation of national reports on the status of marine mammals in Eastern, Central and Western Africa and South-East Pacific with recommendations for management;

(b) Implementation of the regional South-East Pacific Marine Mammal Action Plan (ongoing). Promotion of marine mammal research in the South-West Atlantic;

(c) Preparation of public awareness and educational materials (ongoing); support to Emergency Response Team to investigate and advise on mass marine mammal mortality (ongoing); support to collection of data necessary for the conservation and sustainable use of marine living resources; support to assessment of critical habitats and updates on marine biodiversity;

(d) Organization of two meetings of the planning and coordinating committee of the Marine Mammals Action Plan (MMAP) and two meetings of the scientific and advisory committee of MMAP.

Outputs: National reports on the status of marine mammals in East Africa, Central and Western Africa and South-East Pacific; two national reports on marine mammal research; meeting reports.

Proposed allocation under subprogramme 4	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$600,000 (C2) $200,000 (S)	Biodiversity (3.4.1 (e)): Environmental law (7.1) Capacity-building (11.1.1) (11.1.2)	 In kind In kind In kind	FAO; IUCN; WWF; WDCS; IWC; Greenpeace International; CMS; IATTC; IFAW; IOC/Unesco

2. **Programme element 4.3: overview of proposed resource allocation under subprogramme 4 (United States dollars)**

Activity	Core 1	Core 2	Supplementary	Total
4.3.1	0	600,000	200,000	800,000
Total	0	600,000	200,000	800,000

D. Total proposed resource allocation under subprogramme 4

Programme element	Core 1	Core 2	Supplementary	Total
4.1	9,670,000	0	2,600,000	12,270,000
4.2	150,000	2,050,000	300,000	2,500,000
4.3	0	600,000	200,000	800,000
Total	9,820,000	2,650,000	3,100,000	15,570,000

III. SYSTEM-WIDE PROGRAMME

A. System-wide strategy

The system-wide strategy is set out in the system-wide medium-term environment programme, 1990-1995, paragraphs 184-185, 196-197, 201-202 and 206-208 (on oceans and coastal areas) and paragraphs 71-78, 154-156, 334-338, 347-351, 365-369 and 375-379 (which are relevant to oceans and coastal areas).

B. Activities of the United Nations system and other organizations

AsDB	Involved in the development of EAS marine database.
ASCOPE	Involved in the development of ASEAN Oil Spill Response Action Plan.
ASEAMS	Assisting in the organization of meetings in the region, as well as publishing the EAS Newsletter.
CMS secretariat	Assists and facilitates in the implementation of the Bonn Convention and the protection of marine mammals included therein.
ECA	Undertaking work in promoting the ratification of United Nations Convention on the Law of the Sea and the harmonization of national coastal and marine legislation.
ESCAP	Involved in development and capacity-building for South Asian Seas region.
FAO	Contributing to the development of integrated coastal area management (ICAM); cooperating with the Global Plan of Action for the Conservation, Management and Utilization of Marine Mammals; executing agency for the Marine Pollution Monitoring and Coastal Zone Management of the Eastern African Action Plan; co-sponsor of the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP).
Greenpeace International	Cooperation with the Global Plan of Action for the Conservation, Management and Utilization of Marine Mammals.
IAEA	Quality assurance and maintenance of pollution monitoring equipment, involved in implementation of the Marine Pollution Monitoring in West and Central Africa and in Eastern African, supports the work of the GIPME group of experts on standards and reference materials (GESREM); co-sponsor of the Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP).

IATTC	Cooperation in the Global Plan of Action for the Conservation, Management and Utilization of Marine Mammals.
IFAW	Cooperation in the Global Plan of Action for the Conservation, Management and Utilization of Marine Mammals.
IMO	Contributing to the development of integrated coastal area management (ICAM), involved in development of marine pollution contingency plans and implementation of MARPOL Conventions, involved in the development of ASEAN Oil Spill Response Action Plan; co-sponsor of the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP).
IOC/UNESCO	Contributing to the development of integrated coastal area management (ICAM), develops and operates the Global Ocean Observing System (GOOS) developed in cooperation with UNEP and WMO; involved in research and training in oceanographic work, and the development of oil pollution control project in EAS; co-sponsors with UNEP the Intergovernmental Panel for GIPME and its groups of experts; acts as Technical Secretariat for the IOC-UNEP-WMO Long-term Global Monitoring System for Coastal and Near-shore phenomena related to climate change; cooperates in the Global Plan of Action for the Conservation, Management and Utilization of Marine Mammals.
IUCN	Contributing to the development of integrated coastal area management (ICAM), operation of several marine mammal specialist groups of the Species Survival Commission, involved in EAF/6 project, the development of management and conservation plans, marine parks and public awareness.
United Nations	Contributing to the development of integrated coastal area management (ICAM); co-sponsor of the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP).
UNCHS	Contributing to the development of integrated coastal area management (ICAM).
UNESCO	Involved in training of marine scientists; operates the COMAR programme and its regional components, for example COMARAF; co-sponsor of the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP).
UNIDO	Contributing to the development of integrated coastal area management (ICAM).
WHO	Involved in the EAF/6 project, rapid hazard assessment of land-based source of pollution; co-sponsor of the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP).
WMO	Cooperates with UNEP and IOC in the long-term global monitoring system for coastal and near-shore phenomena related to climate change; operates World Weather Watch; implements the health component of the marine pollution monitoring projects in the regional seas areas; co-sponsor of the Joint Group of Experts on the Scientific Aspects of Marine Pollution (GESAMP).
World Bank	Contributing to the development of integrated coastal area management (ICAM) and environmental economics; involved in financing national governmental management plans.
WWF	Participation in and support to the Global Plan of Action for the Conservation, Management and Utilization of Marine Mammals.

SUBPROGRAMME 5. ENVIRONMENTAL HEALTH, SETTLEMENTS AND HUMAN WELFARE

I. PROGRAMME STRATEGY OF UNEP

A. Strategy

1. The subprogramme aims at improved health and quality of life of the people through promotion of environmental health at all levels and incorporation of environmental considerations in the planning and management of human settlements so as to ensure sustainable development of shelter and infrastructure. The focus of subprogramme will be to make the settings in which people live in (homes, villages, towns, schools, workplace, etc.) more healthy and able to promote people's well-being by reducing and where possible eliminating, all factors in the environment that pose a risk to human health and well-being. This will require identification of environmental factors causing human diseases through epidemiological studies paying due attention to health and environmental effects of toxic chemicals and the encouragement of human settlements development that is in harmony with natural systems. It will require cooperation in the areas of provision of safe water, adequate sanitation, removal and safe disposal of municipal wastes, and protection of air quality and public spaces, particularly in reference to the low-income groups and underserved sections of the population, as well as a reduction in the adverse health and environmental effects of energy, industry and water- resource development activities, keeping in mind the need for developing countries to increase the pace of their development and economic growth. With respect to the promotion of human welfare, the programme strategy is to pay special attention to low-income groups and those living in crushing poverty. The new urban agenda will extend beyond GNP growth in cities to focus on alleviating poverty, on strengthening local government and on providing housing, infrastructure and essential services for the poor. With respect to natural and man-made disasters the general aim is to prevent and mitigate the effects of natural and man-made disasters on communities and to strengthen the preparedness of communities and to strengthen the preparedness of communities to cope with them. UNEP will continue its strategies with other United Nations agencies in particular WHO, UNCHS (Habitat), ILO in the realization of this subprogramme, which is closely related to toxic chemicals and waste management (8.1), industry, energy and environment (9), soils, agricultural lands and agrochemicals (3.1) and IRPTC (10.4).

B. Legislative authority

2. The legislative authority for the subprogramme derives from the revised United Nations medium-term plan, 1992-1997 (A/47/6/Rev.1), programme 16 (Environment); General Assembly resolutions 44/224, 44/228; resolution I of the Governing Council at its session of special character of 1992, section III, paragraphs 2 (a), (d), (g) and (i), and section IV, and Council decisions 10/15, 10/16, 14/3, 14/9, 14/13, 14/27, 14/32, 15/1, section IV (h), 15/10, 15/18, 16/15, 16/28 and 16/35; and Agenda 21, chapters 6 and 7. Also relevant are Agenda 21, chapters 3, 5, 16, programme areas B-D, 18, programme areas D-E, 19 and 20, and Rio Declaration principles 1, 3, 5, 7, 8, 14 and 17.

C. Agenda 21 priorities for UNEP

5. Agenda 21 recognizes the interdependence between health, population pressures, poverty, development and the environment, and the harmony between the built environment of human settlements and the natural environment. The priority for UNEP will be to promote the implementation of the specific strategies and action plans set out in Agenda 21 (chapters 6 and 7) to protect and promote human health and create the right harmony between the built environment and the natural environment. The existing programme elements will be further enhanced by actions in response to Agenda 21.

II. PROGRAMME ELEMENTS

A. Programme element 5.1. Environmental aspects of human settlements planning

1. Activities

5.1.1. **Description**: Development of plans of actions on environmental aspects of metropolitan growth and management for adoption in four selected cities.

Outputs: Four developing countries assisted in the development and implementation of plans of action on environmental aspects of urban growth and management.

Proposed allocation under subprogramme 5	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/ supporting organizations
$200,000 (C1) $100,000 (C2) $100,000 (S)	Toxic chemicals (8.1.4)	$575,000(C1) ML $125,000(C2) $170,000(S)	UNCHS: $100,000; UNESCO; WHO; UNIDO; ESCAP; UNFPA
	Energy and environment (9.1.1)	$210,000(C1) ML $90,000(C2) $60,000(S)	
	Environmental health (5.3) (5.4)	In kind In kind	
	Support and cooperation	In kind	
	Capacity-building (11.1)	In kind	

5.1.2 **Description**: Development of policy options for four coastal settlements, in the context of sealevel rise.

Output: Four developing countries assisted in developing policy options for coastal settlements.

Proposed allocation under subprogramme 5	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/ supporting organizations
$400,000 (C1)	Environmental health (5.4)	In kind	WHO: $30,000; UNCHS;
$50,000 (C2)	(5.3)	In kind	IUCN
	Oceans (4.1)	In kind	
	Atmosphere	In kind	

5.1.3 **Description**: Dissemination of information on environmentally appropriate technologies for air and water pollution and wastewater handling; application of the UNEP/WHO guidelines on health aspects of human settlements planning in selected countries.

Outputs: Up-to-date information on environmentally appropriate technologies. Sixty urban managers from 20 countries trained in applying UNEP/WHO guidelines on health aspects of human settlements.

Proposed allocation under subprogramme 5	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/ supporting organizations
$510,000 (C1)	Freshwater resources (2.1)	In kind	WHO: $100,000; UNCHS;
$80,000 (C2)	Toxic chemicals (8.1.4) (see 5.1.1)		Governments
$160,000 (S)	Energy and environment (9.1.3)	$200,000 (C1)ML	
		$40,000(S)	
	Environmental health (5.4)	In kind	
	(5.3)	In kind	

5.1.4 Rephased activities from the biennium 1992-1993.

Proposed allocation under subprogramme 5	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/ supporting organizations
$100,000 (C1)	-	-

2. Programme element 5.1: overview of proposed resource allocation under subprogramme 5 (United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
5.1.1	200,000	100,000	100,000	400,000
5.1.2	400,000	50,000	50,000	500,000
5.1.3	310,000	80,000	160,000	550,000
5.1.4	100,000	0	0	100,000
Total	1,010,000	230,000	310,000	1,500,000

B. Programme element 5.2: Community preparedness for natural and man-made environmental disasters

1. Activities

5.2.1 **Description**: Preparation of guidelines and information systems for the mitigation and preparedness of man-made and natural disasters.

Outputs: Guidelines for the mitigation and preparedness of man-made and natural disasters.

Proposed allocation under subprogramme 5	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/ supporting organizations
$160,000 (C1)	Environmental health (5.4)	In kind	UNDRO; IAEA; WMO;
$40,000 (C2)	Environmental law (7.4)	In kind	WHO; IMO; UNHCR;
$50,000 (S)	IRPTC (10.4)	In kind	Governments; regional
	GEMS (10.2)	In kind	economic commissions;
	Industry and environment (9.2)	In kind	IPCS: $238,000
	Toxic chemicals	In kind	

2. Programme element 5.2: overview of proposed resource allocation under subprogramme 5
(United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
5.2.1	160,000	40,000	50,000	250,000
Total	160,000	40,000	50,000	250,000

C. Programme element 5.3. Hazards of pollution

1. Activities

5.3.1 **Description**: ILO/UNEP/WHO International Programme on Chemical Safety (IPCS) in accordance with its revised objectives, including the implementation of the international strategy and action plan for environmentally sound management of toxic chemicals and the development and promotion of health biotechnology applications.

Outputs: Environmental Health Criteria documents (10); health and safety guides (10); international chemical safety cards (200); poison information monographs (60); critical reviews, monographs, and risk assessment methodologies (5); trained staff on all aspects of chemical safety (200).

Proposed allocation under subprogramme 5	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/ supporting organizations
$720,000 (C1) $180,000 (C2) $200,000 (S)	Toxic chemicals (8.1.1)	$1,200,000(C1)ML $300,000 (C2) $400,000 (S)	IPCS: $2,335,000; ILO: $449,000; Extra-budgetary: $12,900,000 (required); UNIDO
	Soils (3.1.7)		
	IRPTC (10.4)	In kind	
	Industry and environment (9.2)	In kind	

5.3.2 **Description**: International monitoring of the incidence of skin cancer and other biological effects of solar ultraviolet radiation in relation to environmental change (INTERSUN); studies on the relationship between environment, human cancer and genetic defects and training courses on environment and cancer (2).

Outputs: Interim report on INTERSUN; trained staff (50).

Proposed allocation under subprogramme 5	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/ supporting organizations
$200,000 (C1) $40,000 (C2) $60,000 (S)	IRPTC (10.4)	In kind	WHO: $100,000; IARC: $120,000; Others: $430,000 WHO; USEPA
	GEMS (10.2)	In kind	
	Toxic chemicals	In kind	

5.3.3 **Description**: Assessment of the health impact of climate change.

Outputs: Up-to-date review on research and monitoring data.

Proposed allocation under subprogramme 5	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/ supporting organizations
$100,000 (C1) $20,000 (C2) $60,000 (S)	IRPTC (10.4)	In kind	WHO: $100,000
	GEMS (10.2)	In kind	
	Toxic chemicals (8.1)	In kind	

5.3.4 Rephased activities from the biennium 1992-1993.

Proposed allocation under subprogramme 5	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/ supporting organizations
$20,000 (C1)		

2. **Programme element 5.3: overview of proposed resource allocation under subprogramme 5 (United States dollars)**

Activity	Core 1	Core 2	Supplementary	Total
5.3.1	720,000	180,000	200,000	1,100,000
5.3.2	200,000	40,000	60,000	300,000
5.3.3	100,000	20,000	60,000	180,000
5.3.4	20,000	0	0	20,000
Total	1,040,000	240,000	320,000	1,600,000

D. **Programme element 5.4. environmental aspects of human health**

5.4.1 **Description**: Incorporation of skills for environmental health education in the training of teachers of primary and secondary schools. Follow-up to the Sundsvall conference on creating supportive environments for health.

Outputs: Inter-country consultations (2); country case-studies (2-3); educational and promotional materials on supportive environments for health.

Proposed allocation under subprogramme 5	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/ supporting organizations
$300,000 (C1) $50,000 (C2) $50,000 (S)	Toxic chemicals GEMS (10.2)	In kind In kind	WHO: $450,000; Nordic countries; IPCS: $400,000; (extrabudgetary, requested)

5.4.2 **Description**: Assistance to four selected developing countries for development of appropriate local training programmes in environmental health at all levels.

Outputs: Training manuals (4); trained staff (60).

Proposed allocation under subprogramme 5	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/ supporting organizations
$300,000 (C1) $50,000 (C2) $50,000 (S)	IRPTC (10.4) GEMS (10.2) Human settlements (5.1)	In kind In kind In kind	WHO: $350,000

5.4.3 **Description**: Two demonstration projects and two training workshops on environmental health impact assessment in developing countries, jointly with ministries of health and environment.

Outputs: Trained staff (40); manuals (2).

Proposed allocation under subprogramme 5	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/ supporting organizations
$125,000 (C1) $50,000 (C2) $85,000 (S)	GEMS (10.2)	In kind	WHO: $150,000; FAO

5.4.4 **Description**: Assistance to four selected developing countries for the development of national strategies for the prevention and control of food contamination, micronutrient deficiencies, etc. Promotion of food safety.

Outputs: Demonstration manuals (2); training manuals; trained staff (40).

Proposed allocation under subprogramme 5	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/ supporting organizations
$125,000 (C1) $50,000 (C2) $50,000 (S)	Soils (3.1.6) GEMS (10.2)	In kind	WHO: 100,000; FAO

5.4.5 **Description**: Assistance to four selected developing countries for water pollution control: bacteriological; parasitic vector-borne diseases; heavy metals and other chemicals. Health aspects of the use of wastewater: development of guidelines and promotion through workshops; epidemiological studies on health effects of mining pollution.

Outputs: Guidelines (two sets); trained staff (40); manuals (2).

Proposed allocation under subprogramme 5	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/ supporting organizations
$140,000 (C1) $40,000 (C2) $85,000 (S)	Freshwater resources Soils (3.1.9) Lithosphere (3.6.2) Human settlements (5.1)	In kind In kind	WHO: $260,000; FAO; UNIDO; IPCS: $500,000 (extrabudgetary, requested)

5.4.6. Rephased activities from the biennium 1992-1993.

Proposed allocation under subprogramme 5	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/ supporting organizations
$50,000 (C1)	-	-

2. Programme element 5.4: overview of proposed resource allocation under subprogramme 5
(United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
5.4.1	300,000	50,000	50,000	400,000
5.4.2	300,000	50,000	50,000	400,000
5.4.3	125,000	50,000	85,000	260,000
5.4.4	125,000	50,000	50,000	225,000
5.4.5	140,000	40,000	85,000	265,000
5.4.6	50,000	0	0	50,000
Total	1,040,000	240,000	320,000	1,600,000

E. Total proposed resource allocation under subprogramme 5
(United States dollars)

Programme element	Core 1	Core 2	Supplementary	Total
5.1	1,010,000	230,000	310,000	1,550,000
5.2	160,000	40,000	50,000	250,000
5.3	1,040,000	240,000	320,000	1,600,000
5.4	1,040,000	240,000	320,000	1,600,000
TOTAL	3,250,000	750,000	1,000,000	5,000,000

III. SYSTEM-WIDE PROGRAMME

A. System-wide strategy

The system-wide strategy is set out in the system-wide medium-term environment programme 1990-1995, paragraphs 227-231, 237-240, 247-252 and 260-264.

B. Activities of the United Nations system and other organizations

UNCHS — UNCHS is concerned with planning and management of rural and urban settlements to improve the quality of life. Habitat assists developing countries, through its operational activities, to improve the conditions of housing, water and sanitation and other community services in all settlements, and especially in urban slums and squatter settlements. UNCHS is also involved in application of environmental guidelines to urban areas; improvement of health conditions in housing and settlements, disaster prevention and mitigation and collection and dissemination or urban environmental data, in relation to the environment of its urban management programme.

WHO, UNEP, ILO — Through the IPCS, WHO in collaboration with UNEP and ILO evaluates the health and environmental risks of exposure to priority chemicals in all media and provides evaluated information to member States which may be used as basis for regulation on chemicals. Information is provided in the form of Environmental Health Criteria documents, health and safety guides, international chemical safety cards, pesticide data sheets, toxicological monographs on food additives and contaminants, pesticides and veterinary drugs found in food, poison information monographs, and other guideline documents. Methodology for risk assessment is proposed to foster development and publication of internationally accepted approaches and methods for testing, assessing and predicting the effects of chemicals on human

	health and the environment including also strengthening environmental epidemiology. National capabilities for prevention and treatment of poisoning are strengthened through the provision of an information database and computerized system and through the harmonization and collection of data relating to exposure to observed health effects of chemicals. International cooperation with respect to chemical emergencies and accidents is promoted through the provision of guidelines undertaken in cooperation with UNEP (IE/PAC) and OECD. National capabilities for management of chemical risks are strengthened through support to technical cooperation activities and through training, including development of training and public educational materials. UNIDO anticipates joining the IPCS in 1993 and its programmes include elaboration of integrated international safety guidelines in pesticides formulation in developing countries and establishment of the Global Network for Safety in Chemicals Production (GLONESA).
WHO	Evaluation of health risks from radiation and other physical factors in the environment, and collaboration in national environmental pollution control programme development through guidelines and technical cooperation; training and research on pollution problems in developing countries; strengthening of educational institutions providing instruction in engineering and agricultural approaches to environmental management for disease vector control; preparation of guidelines on environmental management and other health safeguards in water resource development projects. Technical assistance and advisory services in the establishment and strengthening of national food control and food contamination monitoring systems, and improvement of national food control legislation; training in food control; organization of courses and promotion of technical cooperation between developing countries. Support for national monitoring programmes for environmental pollutants and contaminants and preparation of comprehensive assessments on a regional and global scale; preparation of recommendations on allowable daily intakes.
WHO, IARC	Continuing evaluation of the carcinogenic risks of chemicals and occupational exposures, and publication of monographs on individual chemicals. Implementation of the INTERSUN project to study the health effects of UV-radiation. Promotion of health education, healthy lifestyles, etc.
FAO, WHO	Support for the activities of the Codex Alimentarius Commission on the evaluation by IPCS of food additives, food contaminants, and pesticide and veterinary drug residues; additionally, WHO supports the preparation of food standards and codes of practice and the promotion of regional cooperation in food control through regional Codex committees.
IAEA, WHO, ILO, FAO	Development, updating and implementation of radiation protection standards, guidelines and recommendations; preparation of internationally recognized intervention levels for dealing with unanticipated contamination.
ILO	Active collaboration with WHO and UNEP, emphasizing in particular the prevention of major hazards, safety in the use of chemicals at work (including the possible preparation of international labour standards), training and information dissemination activities through ILO's International Occupational Safety and Health Information Centre (CIS) and the International Safety and Health Hazard Alert System. New technical assistance activities are being provided in the establishment and operation of major hazard control systems.
ILO, IMO, United Nations, FAO, UNIDO, OECD, CEC	Within the context of the IPCS and under the leadership of ILO, harmonization will be developed of classifications of specific chemical hazards as basis for disseminating in all United Nations languages harmonized systems of labelling of chemicals. Training activities and technical assistance programmes to establish institutional facilities for chemical safety; training of works inspectors, agricultural supervisors, emergency response staff educational programmes for chemical hazard communication and prevention programmes for the public and selected professional groups.
OECD, IPCS, FAO	In conjunction with UNEP (IRPTC/PAC and IE/PAC), registry of chemicals being tested for toxic effects and of chemical reviews; production of PIC documents; Development of risk reduction programmes to phase out the use of toxic chemicals and replace them with less toxic ones; integrated pest management; chemical accident prevention and response activities, including APELL.
WHO, FAO	Promotion of environmental management for specific vectors under specific ecological conditions; promotion of the incorporation of a health component into the curriculum of engineering courses; continued publication of annual PEEM reports and quarterly PEEM newsletters; continued support for PEEM secretariat.
ECE	Implementation of the Convention on Environmental Impact Assessment in a Transboundary Context. Promotion of environmentally sound management of hazardous chemicals, in cooperation with OECD.
IAEA	Applied research into and monitoring of health-related environmental pollution using nuclear and isotope techniques.
United Nations	Assistance to Governments in the formulation of mine safety and environmental protection regulations.
WMO, FAO	Monitoring and assessment of pollutants, contaminants in food, air, water and soil, through GEMS.

UNHCR	Participates in the preparation of a practical guide to environmental health management in disasters and emergencies; promotes sound environmental health conditions in refugee camps and settlements through clean water supply, sanitation, vector control, immunization and health care as well as training programmes for health workers and supports mine-awareness and demining programmes in areas where refugees return in their home country.
UNESCO UNDRO	Study of the mechanisms underlying natural hazards of geological origin; evaluation of historical data on natural disasters; improvement of earthquake, taunamics and volvanic activities prediction on early-warning systems; promotion of design safety measures in low-cost housing, major engineering works, schools and monuments; enhancement of education, public awareness and policy-making in natural disaster scientific and societal investigation plans; professional skill enhancement. Mobilization and coordination of international relief assistance for victims of disasters caused either by natural phenomena or man-made hazards; provision of technical assistance in disaster-preparedness and prevention activities.
WHO UNDRO	Strengthening of capabilities in the member States for disaster-preparedness and management through support planning and training; enhancing prompt response capabilities, including information and communication systems.
IDNDR Secretariat	Reduction of loss of life, property damage, social and economic disruption caused by natural disasters.

SUBPROGRAMME 6. ENVIRONMENTAL ECONOMICS, ACCOUNTING AND MANAGEMENT TOOLS

I. PROGRAMME STRATEGY OF UNEP

A. Strategy

1. UNEP's catalysis and promotion of an integrated approach to environment and development involves conceptual clarification, methodological advancement, synthesis and application, information provision, and networking with concerned institutions, human resource development and capacity-building. The design and implementation of the programme is guided by concentration on those activities that enable UNEP to perform better its catalytic, consensus-building and capacity-building functions for environmental management. Areas which receive particular attention are: valuation of environmental and natural resources including estimating costs of inaction, costs of adjustment or adaptation and damage costs; environmental and natural resource accounting; environmental impact assessment, cost-benefit analysis and risk assessment and management; economic instruments and policies and capacity-building for environmental management. The emphasis is on working closely with development institutions, professional associations, academic and research institutions and centres of expertise in testing and promoting application of methodologies and policies, disseminating information on successful practices, promoting a better understanding of the linkages between people, resources, environment and development and providing capacity-building service to the developing countries and to the countries in transition to market economies.

2. Regarding international cooperation, the emphasis is on clarifying the linkages between trade, transnational investments, international finance, structural adjustment programmes, and environmental management, and on helping build mutual support between international economic cooperation and international environmental cooperation. This aspect is addressed in close association with GATT, UNCTAD, the International Trade Centre, WIPO, World Bank, IMF, OECD and other organizations.

B. Legislative authority

3. The legislative authority for the subprogramme derives from the revised United Nations medium-term plan 1992-1997 (A/47/6/Rev.1), programme 16 (Environment), General Assembly resolutions 42/186, 42/187, 44/227 and 44/228 Governing Council decisions 15/1, 16/2 and SS III/2, and Agenda 21, chapters 2, 3, 8, 37 and 38.

C. Agenda 21 priorities for UNEP

4. The Agenda 21 priorities for UNEP are:

(a) To improve decision-making processes for environment and development (paragraphs 8.4 (a)-(f)),* planning and management systems (paragraphs 8.5 (a)-(h)), and data and information for monitoring and evaluation of progress for achieving sustainable development (paragraph 8.6);

(b) To build a national consensus, formulate capacity-building strategies (paragraph 37.5), and enhance collaboration and joint activities with the United Nations system in capacity-building (paragraphs 37.8, 37.9 and 37.10);

(c) To enhance understanding of sustainable development economics (paragraphs 8.38 (a)-(c));

(d) To develop and promote the use of techniques such as natural resource accounting and environmental economics (paragraph 38.22 (c)), strengthen international technical cooperation in establishing systems of integrated environmental and economic accounting (in collaboration with the United Nations Statistical Office) (paragraphs 8.43 (b) and 8.50)), and support the utilization of sustainable development indicators in national economic and social planning and decision-making practices (paragraph 8.44 (a));

(e) Further development and promotion of the widest possible use of environmental impact assessments, including activities carried out under the auspices of United Nations specialized agencies (paragraphs 38.22 (i));

(f) To improve and/or reorient governmental policies (paragraphs 8.34 (a) and (b)), and create an inventory of effective uses of economic instruments and market mechanisms (paragraph 8.35), and increase understanding of their role (paragraphs 8.36 (a)-(c));

(g) Establish a process for focusing on pricing and valuation of environmental goods and services (paragraphs 8.37 (a)-(c));

(h) Promote the mutual compatibility of trade and environment; (paragraph 2.10 (d));

(i) Establish review mechanisms of technical cooperation in and related to technology transfer and know-how (paragraphs 37.7 (a)-(f));

(j) Poverty alleviation (paragraphs 3.10 (a)-(f));

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* All references to chapters and paragraphs in this section are to those of Agenda 21.

(k) Support Governments, upon request, and, as appropriate, development agencies and organizations in the integration of environmental aspects into their development policies and programmes (paragraph 38.22 (m)). Assist Governments in the preparation for their adoption of national strategies for sustainable development (paragraph 8.7).

II. PROGRAMME ELEMENTS

A. Programme element 6.1. Environmental economics, accounting and management tools

1. Activities*

6.1.1. **Description**: The activity comprises:

(a) Strengthening the teaching, applied research database and information capabilities in developing countries and countries in transition, and establishment of a corresponding network of institutions;

(b) Training administrators and policy makers in the use of techniques and policies relating to environment and economics.

Outputs: The outputs comprise:

(a) Strengthened institutions (12 institutions) in developing countries and countries in transition;

(b) Trained administrators and policy makers in the use of techniques and policies relating to environment and economics.

Proposed allocation under subprogramme 6	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,000,000 (C1)	Biodiversity	In kind	UNDP; WHO; UNIDO; UNCTAD;
$200,000 (C2)	Energy and environment	In kind	OECD; UNU/World Institute for
$500,000 (S)	Capacity-building	In kind	Development Economics
	Support and cooperation	In kind	Research (WIDER); universities and research institutions; professional associations; regional economic commissions; regional development banks

6.1.2 **Description**: Support for further development, testing and application of methodologies of valuation of environmental and natural resources, including costs of inaction, costs of adaptation/adjustment and damage costs, and their distributional aspects, keeping in view intergovernmental environmental agreements.

Outputs: Pilot country applications of valuation methodologies of environmental and natural resources (biological diversity, climate change, ozone layer depletion, soil and land degradation, desertification, coastal areas and regional seas, energy, freshwater, forests and environmental health) (12 pilot country applications).

Proposed allocation under subprogramme 6	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$600,000 (C1)	Atmosphere	In kind	Governments; convention
$120,000 (C2)	Freshwater resources	In kind	secretariats; World Bank;
$300,000 (S)	Soils	In kind	UNDP; WMO; WHO; FAO;
	Desertification	In kind	UNCTAD; research institutions;
	Forests	In kind	regional economic commissions;
	Biodiversity	In kind	regional development banks
	Oceans	In kind	
	Human health	In kind	
	Energy and environment	In kind	
	Capacity-building	In kind	
	Support and cooperation	In kind	

6.1.3. **Description**: Support to the establishment of systems of integrated environmental and economic accounting through the further development, testing and application of methodologies of environmental and natural resource accounting.

Outputs: Developing countries and countries in transition (12 countries) assisted in the application of environmental and natural resource accounting.

Note: * 1. It is intended that assistance in the application of the various economic instruments and analysis, valuations methodologies and in capacity-building will be provided in a set of concentration countries (12) to ensure continuity and complementarity of work undertaken.

2. Financial contributions from other subprogrammes will be determined when concrete project proposals are developed and funding requirements determined.

Proposed allocation under subprogramme 6	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$600,000 (C1) $200,000 (C2) $200,000 (S)	Energy and environment Earthwatch Capacity-building Support and cooperation	In kind In kind In kind In kind	Governments; United Nations; United Nations Statistical Office; UNDP; World Bank; research institutions; regional economic commissions; regional development banks

6.1.4 **Description**: Assistance to developing countries in the practical application of environmental impact assessment, cost-benefit analysis and risk assessment and management to promote sustainable development, with particular focus on policy impacts, transboundary effects, sectors with major environmental impacts and on the role of special interest groups.

Outputs: Developing countries (12 countries) assisted in the application of environmental impact assessment, cost-benefit analysis and risk assessment and management.

Proposed allocation under subprogramme 6	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$600,000 (C1) $200,000 (C2) $200,000 (S)	Forests Human health Energy and environment Industry and environment Capacity-building Support and cooperation	In kind In kind In kind In kind In kind In kind	Governments; United Nations; UNDP; World Bank; FAO; WHO; UNIDO; regional economic commissions; regional development banks

6.1.5 **Description**: Assistance to developing countries and countries in transition in the application of economic instruments and policies for environmental management, with particular emphasis on intergovernmental environmental agreements and national capacity-building.

Outputs: Developing countries and countries in transition (12 countries) assisted in the application of economic instruments and policies for environmental management.

Proposed allocation under subprogramme 6	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$600,000 (C1) $200,000 (C2) $200,000 (S)	Environmental law Energy and environment Capacity-building	In kind In kind In kind	Governments; United Nations; UNDP; World Bank; FAO; WHO; OECD; UNIDO; UNESCO; UNCTAD; regional economic commissions; regional development banks

6.1.6 **Description**: Promotion and development of modalities for integrating environmental considerations in international economic cooperation (commodity terms of trade, structural adjustment programmes, impact of agricultural production and export subsidies, pollution abatement offsets and tax credits, innovative means of financing environmental management).

Outputs: Modalities for an integrated international system of environmental and economic cooperation.

Proposed allocation under subprogramme 6	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$600,000 (C1) $300,000 (C2) $400,000 (S)	Environmental law Capacity-building	In kind In kind	UNCTAD; GATT; International Trade Centre; OECD; World Bank; IMF; WIPO; FAO; UNIDO; regional economic commissions; regional development banks

6.1.7 **Description**: Provision of guidance to developing countries in designing and implementing an integrated approach to capacity-building for environmental management.

Outputs: Developing countries (12 countries) assisted in designing and implementing an integrated approach to capacity-building for environmental management.

Proposed allocation under subprogramme 6	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$900,000 (C1)	Water	In kind	Governments; United Nations;
$300,000 (C2)	Soils	In kind	UNDP; World Bank; regional
$400,000 (S)	Forests	In kind	commissions; FAO; WHO; UNIDO;
	Environmental law	In kind	regional development banks
	Energy and environment	In kind	
	Earthwatch	In kind	
	Capacity-building	In kind	
	Desertification	In kind	
	Support and cooperation	In kind	

6.1.8 **Description**: Development of modalities for promoting collaboration between members of the Committee of International Development Institutions on the Environment (CIDIE) and between CIDIE member institutions and United Nations organizations, other international organizations, bilateral and non-governmental organizations to implement environmental management and sustainable development programmes.

Outputs: Enhanced capacity of CIDIE member institutions to implement environmental management and sustainable development programmes.

Proposed allocation under subprogramme 6	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$500,000 (C1)	Capacity-building	In kind	CIDIE member institutions
$200,000 (S)	Support and cooperation	In kind	

6.1.9 **Description**: Rephased activities from the biennium 1992-1993.

Proposed allocation under subprogramme 6	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$500,000 (C)	-	-

2. **Programme element 6.1: overview of proposed resource allocation under subprogramme 6 (United States dollars)**

Activity	Core 1	Core 2	Supplementary	Total
6.1.1	1,000,000	200,000	500,000	1,700,000
6.1.2	600,000	120,000	300,000	1,300,000
6.1.3	600,000	200,000	200,000	1,000,000
6.1.4	600,000	200,000	200,000	1,000,000
6.1.5	600,000	200,000	200,000	1,000,000
6.1.6	900,000	300,000	400,000	1,600,000
6.1.7	900,000	300,000	400,000	1,600,000
6.1.8	500,000	-	200,000	700,000
6.1.9	500,000	-	-	500,000
Total	5,900,000	1,520,000	2,400,000	9,820,000

III. SYSTEM-WIDE PROGRAMME

A. System-wide strategy

The system-wide strategy is set out in the system-wide medium-term environment programme 1990-1995, paragraphs 365-370 and 375-380.

B. Activities of the United Nations system and other organizations

World Bank, IMF, UNDP, FAO, IFAD, WFP, WFC, UNIDO, UNFPA, ILO, ECE, United Nations	Promotion of sustainable development in sectoral and overall development cooperation and provision of advice relating to economy wide policies, structural adjustment, sectoral and development planning and in the application of the concepts of environmental management and sustainable development to economic programmes and policies.
UNCTAD, GATT, International Trade Centre United Nations UNDP, World Bank	Integration of environmental considerations in international economic cooperation e.g. trade, finance, technology transfer, transnational investments, and external debt restructuring and alleviation.
CIDIE	Integration of environmental considerations in development assistance and lending operations.
United Nations, FAO, UNIDO, UNESCO, UNDP, ECE	Inclusion of relevant environmental aspects in the work programmes, budgetary allocations and internal procedures for technical cooperation for sustainable development.
WHO	Promotion of the economic analysis of environmental health as part of the appraisal process of socio-economic development projects and programmes. Application of the precautionary principle to the health sector.
FAO	Application of the precautionary principle to the food and agriculture sector. Promotion of sustainable agricultural development and food security. Training policy makers, development analysts and administrators in the use of analytical methods and economic policy instruments for sustainable agricultural and rural development (SARD) as well as development and dissemination of related training materials.
ILO	Special attention given to the interrelationships between employment and environmental policies and programmes.
UNIDO	Application of the "pollution-prevention-pays" principle to industrial development. Promotion of sustainable industrial development. Technical assistance and development of methodologies in the elaboration of environmentally sustainable industrial strategies and plans, and in introducing adequate decision support systems in order to build up a capacity for strategic management of the restructuring and development of industrial sector in developing countries.
World Bank	Research on policies and incentives for sound environmental management, implementation of sustainable development programmes, promotion of national environmental plans, advice on structural adjustment on economic reform.
United Nations, ECE	Promotion and application of integrated environmental and economic accounting and the use of environmental indicators for sustainable development.
Regional economic commissions	Dissemination of information, periodic analysis and review of national policies and planning for sustainable development, capacity-building for environmental management and sustainable development. Promotion of environmental impact assessments, application of economic policy instruments for environmental management and sustainable development, and the integration of environmental considerations in economic decision-making.
GATT	Promotion of compatibility between trade and environmental policies and agreements.
UNCTAD	Promotion of technical cooperation, information dissemination and financing activities leading to the integration of environmental considerations in international economic cooperation with particular emphasis on trade. Reconciliation of environmental and trade policies, application of economic and regulatory tools for environmental management, training of policy makers and negotiators in developmental implications of environmental negotiations.
UNESCO	Establishing pilot field and regional laboratories to explore approaches to sustainable development.
UNFPA	Support to programmes that seek to integrate population trends, policies into environmental and development planning. Data collection and research on linkages between population dynamics, resources use and environmental change with a view of developing appropriate national population polices, study of critical zones and socio-demographic dimensions of risk assessment, integration of population dynamics and policies into environmental and development planning, dissemination of information and awareness creation, undertaking case studies which seek to clarify the relationship between poverty, environmental degradation, and population pressures.

ESCAP	Undertaking country specific studies on the assessment of environmentally sound and sustainable development at macro-and micro-level, development of models for sustainable development and tools and methodologies for the promotion of economic instruments and environmental accounting in the region, and establishment of a regional network of environment and economic policy research institutes.

SUBPROGRAMME 7. ENVIRONMENTAL LAW, INSTITUTIONS AND POLICIES

I. PROGRAMME STRATEGY OF UNEP

A. Strategy

1. The strategy is to further develop, in accordance with the Programme for the Development and Periodic Review of Environmental Law for the present decade (Montevideo II), international legal instruments, in particular conventions and guidelines; to promote their implementation; to coordinate the functioning of the secretariats of environmental conventions; at the national level, to assist developing countries through the provision of technical assistance in accordance with national policies in drafting national environmental legislation and setting up appropriate machineries for the management of the environment, and, disseminate information and provide training in environmental law and institutions at the national, regional and global levels.

B. Legislative authority

2. The legislative authority for the subprogramme derives from the revised United Nations medium-term plan 1992-1997 (A/47/6/Rev.1), programme 16 (Environment); Governing Council decisions 16/25, 16/35, 16/41 and 16/42; resolution 2 of the Nairobi Conference for the Adoption of the Agreed Text of the Convention on Biological Diversity; the Rio Declaration, principles 11, 13, 14, 15, 16, and 17; and Agenda 21, chapters 2, programme area D, 4, programme area B, 5, programme area B, 8, programme areas A-C, 17, programme area B, 19, programme area C, 21, 35, 37, chapter 38, paragraph 38.22 (h), 39 and 40.

C. Agenda 21 priorities for UNEP

5. The Agenda 21 priorities for UNEP are:

(a) Further development of international environmental law, in particular conventions and guidelines, promotion of its implementation, and coordinating functions arising from an increasing number of international legal agreements, inter alia, the functioning of the secretariats of the Conventions, taking into account the need for the most efficient use of resources (Agenda 21, paragraph 38.22 (h));

(b) To set priorities for future international law-making on sustainable development at the global, regional or subregional level, with a view to enhancing the efficacy of international law in this field through, in particular, the integration of environmental and developmental concerns (Agenda 21, paragraph 39.3 (b));

(c) To promote, through the gradual development of universally and multilaterally negotiated agreements or instruments, international standards for the protection of the environment that take into account the different situations and capabilities of countries (Agenda 21, paragraph 39.3 (d));

(d) To ensure the effective, full and prompt implementation of legally binding instruments and to facilitate timely review and adjustment of agreements or instruments by the parties concerned, taking into account the special needs and concerns of all countries, in particular developing countries (Agenda 21, paragraph 39.3 (e));

(e) To identify and address difficulties which prevent some States, in particular developing countries, from participating in the development of international environmental law and to promote and support the effective participation of all countries concerned, in particular developing countries in the negotiation, implementation, review and governance of international agreements or instruments, including appropriate provision of technical and financial assistance and other available mechanisms for this purpose, as well as the use of differential obligations where appropriate (Agenda 21, paragraph 39.3 (a) and (c)); to improve the effectiveness of institutions, mechanisms and procedures for the administration of international legal agreements and instruments (Agenda 21, paragraph 39.3 (f));

(f) Provision of technical, legal and institutional advice to Governments, upon request, in establishing and enhancing their national legal and institutional frameworks, in particular, in cooperation with UNDP capacity-building efforts (Agenda 21, paragraph 38.22 (l));

(g) Facilitation of information exchange, in particular on the legal aspects of environmentally sound technologies and provision of training (Agenda 21, paragraph 38.22 (j));

(h) To disseminate information on effective legal and regulatory innovations in the field of environment and development, including appropriate instruments and compliance incentives, with a view to encouraging their wider use and adoption of the national, state, provincial and local level (Agenda 21, paragraph 8.16 (a)).

II. PROGRAMME ELEMENTS

Programme element 7.1. Environmental law, institutions and policies

1. Activities

7.1.1 **Description output**: Operation of the Environmental Law and Institutions Programme Activity Centre. This involves promotion, development, adoption and implementation of international legal instruments; assisting developing countries to enhance their capacities to develop environmental legislation and institutions to facilitate sustainable development; collection and dissemination of information and creation of a high degree of awareness in the field of environmental law (see activities 7.1.2-7.1.6 below).

Proposed allocation under subprogramme 7	Interlinkages with, and inputs from other subprogrammes		Cooperating agencies/ supporting organizations
$2,400,000 (C1)	All subprogrammes	In kind	Internal

7.1.2 **Description:** Coordination of Convention secretariats, including the implementation of decisions of Contracting Parties.

Output: Coherent coordination of UNEP's environmental convention secretariats by strengthening consultation and cooperation between secretariats with the aim of improving the effectiveness of the implementation of the conventions.

Proposed allocation under subprogramme 7	Interlinkages with, and inputs from other subprogrammes	Cooperating agencies/ supporting organizations
$200,000 (C1) $100,000 (S)	Atmosphere, GEMS 1/ Industry and Environment, IRPTC 2/ Terrestrial ecosystems 3/	Secretariats of Conventions; Governments; UNIDO; IMO; IAEA; UNDP; World Bank; IUCN; UNESCO; FAO

7.1.3 **Description:** Implementation of the Convention on Biological Diversity.

Output: Entry into force and effective implementation of the Convention on Biological Diversity.

Proposed allocation under subprogramme 7	Interlinkages with, and inputs from other subprogrammes	Cooperating agencies/ supporting organizations
$150,000 (C1) $100,000 (C2) $400,000 (S)	Biodiversity (3.4.1)	FAO; UNESCO; IUCN; World Bank; UNDP; ECLAC; ECA; UNIDO; relevant secretariats of Conventions; Governments

7.1.4 **Description:** Preparatory work for the formulation and implementation, as appropriate, of international legal instruments on, in particular marine pollution from land-based sources, exchange of information on chemicals in international trade, desertification, international cooperation in environmental emergencies, and environmental impact assessment.

Output: Development and implementation of international legal instruments on marine pollution from land-based sources and information exchange on international trade in chemicals, preparatory work for the development of legal instruments on international cooperation in environmental emergencies, environmental impact assessment and for the development and implementation of a convention on desertification.

Proposed allocation under subprogramme 7	Interlinkages with, and inputs from other subprogrammes		Cooperating agencies/ supporting organizations
(a) Marine pollution from land-based sources			
$1,300,000 (C1) $400,000 (C2) $600,000 (S)	Oceans (4.1) (4.2.1)	In kind In kind	Governments; IMO; UNESCO; FAO; ESCWA
(b) Exchange of information on chemicals in international trade			
$1,600,000 (C1) $400,000 (C2) $600,000 (S)	IRPTC (10.4.6)	In kind	FAO; WHO; GATT; Governments; ECA
(c) Desertification			
$300,000 (C1) $100,000 (C2) $200,000 (S)	Desertification (3.2.1)	In kind	FAO; UNSO; WMO; ESCAP; IUCN; ECA; ESCWA and other relevant international organizations

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1/ For the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer.

2/ For the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.

3/ For the Convention on Biological Diversity, the Convention on International Trade in Endangered Species of Wild Fauna and Flora, and the Convention on Migratory Species of Wild Animals.

(d) International cooperation in environmental emergencies

$100,000 (C1) $400,000 (C2) $200,000 (S)	Environmental health (5.2.1) Earthwatch	In kind In kind	UNCUEA; IMO; IAEA; WHO

(e) Environmental impact assessment

$100,000 (C1) $400,000 (C2) $200,000 (S)	Environmental economics (6.1) Oceans (4.2)	In kind In kind	ECE; World Bank; ECLAC; Governments; IUCN

7.1.5 **Description**: Technical assistance to developing countries and countries in transition for the development of national environmental legislation and institutions.

Output: A sustained programme of assistance for the development of general and sectoral environmental legislation and institutions in developing countries as a substantive contribution to UNEP's capacity-building programme.

Proposed allocation under subprogramme 7	Interlinkages with, and inputs from other subprogrammes		Cooperating agencies/ supporting organizations
$2,000,000 (C1) $300,000 (C2) $500,000 (S)	Most subprogrammes, and particularly, Capacity-building (11.1) Support and cooperation	 In kind In kind	UNDP; World Bank; UNIDO; IAEA; ESCAP; IUCN; United Nations; Governments; ECA; ESCWA

7.1.6 **Description**: Education, training and disseminating activities such as:

(a) National, regional and international seminars and workshops in the field of international environmental law, training and information;

(b) Institutional attachments, in-house training for senior government officials in the field of international environmental law from the developing countries;

(c) Computer database on national and international environmental law, and ELI/PAC's newsletter; publications such as: Selected Multilateral Treaties in the Field of the Environment; Register of International Treaties and Other Agreements in the Field of the Environment and New Directions in Environmental Legislation.

Output: Organization of global, regional and national seminars and workshops in the field of environmental law and institutions, training of government legal officials in international and national environmental law with the aim of increasing the environmental awareness and as contribution to developing the human resource component of the capacity-building programme, development of a computerized database on international and national environmental law.

Proposed allocation under subprogramme 7	Interlinkages with, and inputs from other subprogrammes		Cooperating agencies/ supporting organizations
	Capacity-building (11.1.4)	$1,000,000 (C1) $1,400,000 (C2) $400,000 (S)	UNU; UNITAR; ILO; IUCN; universities; NGOs; regional economic commissions
	GRID (10.5) Support and cooperation	In kind In kind	

2. Programme element 7.1: overview of proposed resource allocation under subprogramme 7 (United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
7.1.1	2,400,000	0	0	2,400,000
7.1.2	200,000	0	100,000	300,000
7.1.3	150,000	100,000	400,000	6,900,000
7.1.4	3,400,000	1 700,000	1,800,000	7,200,000
7.1.5	2,000,000	300,000	500,000	2,800,000
7.1.6	0	0	0	0
Total	8,150,000	2,100,000	2,800,000	13,050,000

III. SYSTEM-WIDE PROGRAMME

A. System-wide strategy

The system-wide strategy is set out in the system-wide medium-term environment programme 1990-1995, paragraphs 375-379.

B. Activities of the United Nations system and other organizations

FAO, UNESCO, UNDP, World Bank, CGIAR,	In accordance with resolution 1 of the Nairobi Conference for the Adoption of the Agreed Text of the Convention on Biological Diversity, UNDP, IBRD, the regional banks, UNEP and other United Nations bodies and agencies such as FAO and UNESCO are called upon to provide financial and other resources for the provisional implementation of the Convention on Biological Diversity on an interim basis for the period between the opening of the Convention for signature and its entry into force and for the purpose of Article 39 until the first meeting of the Conference of the Parties. Under resolution 2 of the Nairobi Conference, the Executive Director of UNEP is to seek the full and active involvement of FAO and UNESCO in the establishment and operations of the Interim Secretariat, as well as full cooperation with the secretariats of relevant conventions and agreements and CGIAR, IUCN and other relevant international organizations, taking into account relevant decisions of UNCED.
ILO, WHO, UNITAR, FAO, GATT, OECD, EEC	Consultations with UNEP, to enhance cooperation and harmonize activities relating to the implementation of the amended London Guidelines and the prior informed consent procedure.
GATT, FAO, WHO, and others	In the programme area of information exchange on toxic chemicals and chemical risks the objective as stated in Agenda 21 is to achieve by the year 2000, as feasible, full participation in and implementation of the PIC procedure, including possible mandatory applications through legally binding instruments contained in the Amended London Guidelines and in the FAO International Code of Conduct, taking into account the experience gained within the PIC procedure. In this respect, governments and relevant international organizations with the cooperation of industry should: implement the PIC procedure as soon as possible and, in the light of experience gained, invite relevant international organizations, such as UNEP, GATT, FAO, WHO, and others, in their respective area of competence to consider working expeditiously towards the conclusion of legally binding instruments.
World Bank	Uses environmental impact assessment criteria as an important component of its development assistance programme. Cooperation is foreseen in the area of national legislation and institutions in order to enhance UNEP's capacity-building efforts.
UNDP	Cooperation is foreseen with UNEP in the area of national legislation and institutions in relation to capacity-building efforts, as well as in order to assist Governments to fulfil their obligations and requirements under adopted Conventions and future ones.
UNU	Cooperation is planned between UNU and UNEP on co-organizing global and regional seminars in environmental law and institutions as a part of UNEP's capacity-building efforts.
IMO	Cooperating in the development of an international legal instrument on marine pollution from land-based sources.
Regional commissions	Cooperation planned with UNEP in organizing regional seminars and workshops on environmental law.
ESCAP	Advisory services on legislation relating to pollution control and hazardous waste to selected countries such as Thailand, Papua New Guinea, Bangladesh, Pakistan etc.
ECE	The Economic Commission for Europe is responsible for the implementation of that region's convention on environmental impact assessment. Consultations are foreseen with ECE with regard to the development of a new international legal instrument.
UNIDO	Assistance to developing countries in meeting the requirements on the industry-related aspects of international environmental conventions and agreements. In 1992 UNIDO became the fourth executing agency of the Multilateral Fund of the Montreal Protocol for the Protection of the Ozone Layer.
IAEA	Development and promulgation of principles, norms and conventions for the safe development of nuclear energy (e.g. safety standards, transport regulations, accident notification and emergency response, civil liability, physical protection, transboundary movement of radioactive waste).
ICAO	Work in progress (see subprogramme 9) could lead to further development of Annex 16 ("Environmental protection") to the Convention on International Civil Aviation.

SUBPROGRAMME B. TOXIC CHEMICALS AND WASTE MANAGEMENT

I. PROGRAMME STRATEGY OF UNEP

A. Strategy

1. The subprogramme aims at promoting environmentally sound management of toxic chemicals and wastes through enhanced international cooperation with particular reference to the needs of developing countries and countries with economies in transition. UNEP's role will be to provide the necessary catalysis and to act as coordinator in programme development and implementation in cooperation with the relevant United Nations agencies. The UNEP strategy will focus on the development and implementation of internationally harmonized hazards and risk assessment and classification procedures for chemicals and wastes (involving IPCS, IRPTC, and the Basel Convention Secretariat (SBC); development and implementation of internationally agreed risk management actions with a priority on the reduction of exposure to hazardous substances and on waste minimization through promotion of cleaner production, recycling and reuse (involving IPCS, IRPTC, IE/PAC, and SBC); assistance in the elaboration and implementation of national management schemes and controls, through promotion of application of the Cairo Guidelines, the London Guidelines and the prior informed consent (PIC) procedure (involving IRPTC, the human health and human settlements and environmental law subprogrammes, and the SBC); compilation and dissemination of relevant information on potential hazards and risks and possible control actions, including on national and international controls (involving IPCS, IRPTC, Environmental Law, SBC), and provision of technical, legal and institutional assistance to developing countries and countries with economies in transition, in close cooperation with Governments and international intergovernmental and non-governmental organizations including industry (involving IPCS, IRPTC, the industry and environment, human health and human settlements, and environmental law subprogrammes, SBC and capacity-building).

B. Legislative authority

2. The legislative authority for the subprogramme derives from the revised United Nations medium-term plan 1992-1997 (A/47/6/Rev.1), programme 16 (Environment), General Assembly resolution 44/228; Governing Council decisions 16/30, 16/31 and 16/35; and Agenda 21, chapters 19, 20, 21, 22, 30 and 38.22.

C. Agenda 21 priorities for UNEP

3. The Agenda 21 priorities for UNEP is to promote the environmentally sound management of toxic chemicals and wastes, including:

(a) For toxic chemicals:

(i) Expanding and accelerating international assessment of chemical risks;

(ii) Harmonization of classification and labelling of chemicals;

(iii) Information exchange on toxic chemicals and chemical risks;

(iv) Establishment of risk reduction programmes;

(v) Strengthening of national industry capabilities and capacities for management of chemicals;

(vi) Prevention of illegal international traffic in toxic and dangerous products;

(vii) Emphasis will be placed on enhanced cooperation and increased coordination of work amongst United Nations bodies and other international organizations in all the above-mentioned six programme areas described in chapter 19 of Agenda 21, including capacity-building for the management of chemicals at the national level involving all sectors of society;

(b) For hazardous wastes:

(i) Promoting the prevention and minimization of the generation of hazardous wastes;

(ii) Promoting and strengthening institutional capacities in hazardous waste management;

(iii) Promoting and strengthening international cooperation in the management of transboundary movements of hazardous wastes;

(iv) Preventing illegal international traffic in hazardous wastes;

(v) High priority will be given to encouraging countries to ratify the Basel Convention, the Bamako Convention and other relevant conventions and to supporting their implementation to the fullest extent, with special emphasis on minimization of generation of hazardous wastes and on strengthening national institutional capabilities and capacities to manage such wastes;

(c) For solid wastes, wastewater and sewage:

(i) Minimizing wastes;

(ii) Maximizing environmentally sound waste reuse and recycling;

(iii) Promoting environmentally sound waste disposal and treatment;

(iv) Extending waste service coverage;

(v) High priority will be given to the development and initiation of selected programmes involving all sectors of society aimed at establishing comprehensive and environmentally sound services and infrastructure for the collection, transport, reuse and recycling and eventual disposal of solid wastes, wastewater and sewage.

II. PROGRAMME ELEMENTS

Programme element 8.1. Toxic chemicals and waste management

1. Activities

8.1.1 **Description:** Participation in an extended and strengthened International Programme on Chemical Safety (IPCS) as the framework for enhanced international cooperation on environmentally sound management of toxic chemicals.

Output: Joint activities and coordination of work in all six programme areas of chapter 19 of Agenda 21 agreed upon and initiated or strengthened (see also subprogramme 5.3).

Proposed allocation under subprogramme 8	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,200,000 (C1) $300,000 (C2) $400,000 (S)	Environmental health (5.3.1)	$720,000 (C1) $180,000 (C2) $200,000 (S)	WHO; IPCS; FAO; UNIDO; ILO; other IGOs; Governments
	IRPTC (10.4.4)	$150,000 (C1) $50,000 (C2) $150,000 (S)	
	Industry environment (9.2)	In kind	
	GEMS (10.2)	In kind	
	Soils (3.1)	In kind	
	Atmosphere (1.1)	In kind	
	Capacity-building (11.1)	In kind	

8.1.2 **Description:** Support for and coordination of activities aimed at full participation of countries in and implementation of the amended London Guidelines for the Exchange of Information on Chemicals in International Trade and the International Code of Conduct on the Distribution and Use of Pesticides, in particular the PIC procedure.

Output: A fully operational joint programme with FAO for the implementation of the PIC procedure, with training workshops and technical assistance provided in all regions.

Proposed allocation under subprogramme 8	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$800,000 (C1) $175,000 (C2) $250,000 (S)	IRPTC (10.4.6)	$200,000 (C1) $50,000 (C2) $150,000 (S)	FAO; IPCS; UNIDO; other IGOs; ECA; Governments
	Environmental law (7.1)	In kind	
	Soils (3.1)	In kind	
	Capacity-building (11.1)	In kind	
	Support and cooperation	In kind	
	Environmental health (5.3)	In kind	

8.1.3 **Description:** Support for programmes aimed at the prevention and minimization of hazardous wastes, including strengthening institutional capacities in hazardous wastes management.

Output: Cleaner production programmes widely introduced and initiated. Hazardous waste management training taking place in all regions.

Proposed allocation under subprogramme 8	Interlinkages with, and Inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$625,000 (C1) $150,000 (C2) $180,000 (S)	Industry and environment (9.2.2)	$1,910,000 (C1) $750,000 (C2) $500,000 (S)	FAO; WHO; UNIDO; ILO; United Nations; ECA, ESCWA
	IRPTC (10.4.7)	$50,000 (C1)	
	Environmental law (SBC)	In kind	
	Environmental health (5.3)	In kind	
	Capacity-building (11.1)	In kind	
	Support and Cooperation	In kind	
	Environmental economics	In kind	

8.1.4 **Description**: Support for programmes aimed at strengthening capacities, in particular, of developing countries and countries in transition in managing including recycling and reuse of solid wastes, wastewater and sewage in conformity with national or international health and environmental quality guidelines.

Output: Strengthened environmentally sound waste management services and infrastructure in selected developing countries.

Proposed allocation under subprogramme 8	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$575,000 (C1) $125,000 (C2) $100,000 (S)	Human settlements (5.1.1)	$200,000 (C1) $100,000 (C2)	WHO; United Nations; UNCHS; UNIDO; ECA; ESCWA $170,000 (S)
	Industry and environment (9.2)	In kind	
	GEMS (10.2)	In kind	
	Support and cooperation	In kind	
	Environmental health (5.4)	In kind	
	Capacity-building	In kind	
	Environmental economics	In kind	

2. **Programme element 8.1: overview of proposed resource allocation under subprogramme 8 (United States dollars)**

Activity	Core 1	Core 2	Supplementary	Total
8.1.1	1,200,000	300,000	400,000	1,900,000
8.1.2	800,000	175,000	250,000	1,225,000
8.1.3	625,000	150,000	180,000	955,000
8.1.4	575,000	125,000	170,000	870,000
TOTAL	3,200,000	750,000	1,000,000	4,950,000

III. SYSTEM-WIDE PROGRAMME

The system-wide programme on toxic chemicals and waste management, including the activities of the United Nations and other organizations, is reflected in the corresponding sections under subprogrammes 3 and 5 above and 9 and 10 below.

SUBPROGRAMME 9. INDUSTRY, ENERGY AND THE ENVIRONMENT

I. PROGRAMME STRATEGY OF UNEP

A. Strategy

1. The main objectives of the subprogramme are to integrate the management of the environmental impacts of the production and use of energy, industrial activity, tourism and transport into policy-making and planning; strengthen national policies, institutions and capabilities for environmentally sound development in the energy, industry, transportation and tourism sectors, particularly in developing countries; promote a prevention approach to industrial accidents and improve pollution control and enhance the working environment.

2. Consequently the strategy will be to encourage the integration of environmental considerations in the planning, production and use of energy; develop and implement internationally recognized management schemes to foster cleaner production and prevention of industrial accidents; compile and disseminate relevant information on cleaner and safer technologies and environmental management tools in the various industry sectors (including transport and tourism) and to provide relevant technical assistance to government and industry on those issues; promote the incorporation of environmental considerations in the formulation of national and regional transportation plans, and facilitate the reduction of negative health impacts of transportation systems, especially urban transport systems; and strengthen the capacity of countries to design and implement policies and programmes for the improvement of the working environment.

3. UNEP's role will therefore be to provide the necessary catalysis and to act as coordinator in the programme development and implementation in cooperation with the relevant United Nations agencies and Governments and industry. Various subprogrammes closely interrelate with this one, in particular atmosphere, terrestrial ecosystems, environmental health, environmental law (Basel Convention Secretariat), IRPTC, toxic chemicals and waste management, environmental economics, and capacity-building. Coordination within UNEP, and with agencies and Governments, is most essential.

B. Legislative authority

4. The legislative authority for the subprogramme derives from the revised United Nations medium-term plan 1992-1997 (A/47/6/Rev.1), programme 16 (Environment); General Assembly resolutions 44/228, 44/229; Governing Council decisions 13/1, section II, subsection 1, 13/17, 14/13, 14/16, 14/30, 15/1, 15/20, 15/37, 15/39, SS.II/4 and SS.II/9 and 16/25; Agenda 21, chapters 2, programme areas A and B, 4, 7, programme area E, 7, programme area G, 9, programme areas B 1, B 2 and B 3, 14, programme area K, 16, programme area E, 17, 18, 19, 20, 21, 30, 31, programme area B, 34, and 35.

C. Agenda 21 priorities for UNEP

5. Agenda 21 reinforces the international coordinating and catalysing role of UNEP in this area, particularly the need to intensify efforts to develop the appropriate tools and policies to assess the impacts of industrial and energy development on the environment, thus fostering the contribution of various sectors of the society towards sustainable development. The priorities for UNEP will be:

(a) To extend the provision of more energy-efficient technology and alternative/renewable energy for human settlements and to reduce negative impacts of energy production and use on human health and the environment (para. 7.49)*;

(b) To support developing countries in implementing national energy programmes in order to achieve widespread use of energy-saving and renewable energy technologies, particularly the use of solar, wind, biomass and hydro sources (para. 7.51 (b) (i));

(c) To promote and enhance adequate energy availability in economically viable and environmentally sound ways to respond to the increasing energy needs for sustainable economic and social development, particularly in developing countries (chapter 9, programme area B);

(d) To cooperate in undertaking the necessary technical, research, development and adaptation measures to support a transition to environmentally sound energy systems (chapter 9, programme area B);

(e) Not later than the year 2000, to initiate and encourage a process of environmentally sound energy transition in rural communities from unsustainable energy sources, to structured and diversified energy sources by making available alternative new and renewable sources of energy (para. 14.94 (a));

(f) To promote principles for prevention of accidents, preparedness and response through the APELL programme (para. 19.61 (i)), as well as to promote cleaner production by strengthening systems of data collection (paras. 20.14 (c) and 30.16);

(g) To build up assessment capacity for the management of environmentally sound technology and to promote training and data gathering (para. 34.26);

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* All references to chapters and paragraphs in this section are to those of Agenda 21.

(h) To coordinate existing data- and statistics-gathering systems relevant to developmental and environmental issues so as to support preparation of long-term scientific assessments - for example, data on resource depletion, import/export flows, energy use, etc.; to apply the data obtained through the activities identified in programme area B of chapter 35 of Agenda 21 ("Enhancing scientific understanding") to environment/development assessments at global, regional and local levels; and to promote the wide distribution of the assessments in a form that is responsive to public needs and can be widely understood (para. 35.17 (a)).

II. PROGRAMME ELEMENTS

A. Programme element 9.1. Energy and environment

Activities

9.1.1 **Description**: Development of an understanding of the present and prospective nature of the effects of production, transportation and end-use of various types of energy on the human environment.

Output: Preparation of a comprehensive report on this subject for circulation to Governments.

Proposed allocation under subprogramme 9	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$210,000 (C1) $90,000 (C2) $60,000 (S)	Human Settlements (5.1.1) Atmosphere (1.1) Industry and environment (9.2) Environmental economics (6.1) Terrestrial ecosystems (3.1)	 In kind In kind In kind In kind	Relevant United Nations agencies; Governments; ECA; ESCWA

9.1.2 **Description**: Development of models, methods and guidelines for integrated energy/environment planning including the holding of two expert workshops to consider these techniques.

Output: Reports and workshops.

Proposed allocation under subprogramme 9	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$200,000 (C1) $50,000 (C2) $50,000 (S)	Environmental economics (6.1) Capacity-building (11.1)	In kind In kind	IAEA; IIASA; UCC-RISO; ESCAP; ESCWA; ECA

9.1.3 **Description**: Preparation of guidelines on energy/environment/human settlements planning.

Output: Guidelines.

Proposed allocation under subprogramme 9	Interlinkages with, and Inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$200,000 (C1) $40,000 (S)	Human settlements (5.1.3) Environmental economics (6.1) Capacity-building (11.1)	 In kind In kind	UNDP; IIASA; WEC; ECA

9.1.4 **Description**: Preparation of report on mitigation of the effects of different energy sources on climate change and dissemination of information therefrom to countries in cooperation with IPCC.

Output: Report.

Proposed allocation under subprogramme 9	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$150,000 (C1) $50,000 (C2) $50,000 (S)	Atmosphere (1.1) Ozone Secretariat Capacity-building (11.1)	In kind In kind	WMO; Governments; ESCWA

9.1.5 **Description**: Preparation of report on energy and ecosystems with special focus on needs of rural dwellers for circulation to Governments.

Output: Report.

Proposed allocation under subprogramme 9	Interlinkages with, and Inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$80,000 (C1) $20,000 (C2) $50,000 (S)	Desertification control (3.2) Capacity-building (11.1)	In kind In kind	FAO; UNESCO; Governments; ESCWA; ESCAP

9.1.6 **Description:** Development and dissemination of energy/environmental databases for enhancement of policy and planning tools for distribution to developing countries and countries in transition.

Output: Databases.

Proposed allocation under subprogramme 9	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$150,000 (C1) $100,000 (C2) $60,000 (S)	GRID (10.5) INFOTERRA (10.3) Environmental economics (6.1)	In kind In kind In kind	UCC-RISO; SEI; UNIDO; IIASA; IAEA; Governments

9.1.7 **Description:** Preparation of country-specific guidelines criteria for sustainable energy development with emphasis on environmentally benign energy systems in eight developing countries and countries in transition.

Output: Guidelines.

Proposed allocation under subprogramme 9	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$250,000 (C1) $50,000 (C2) $ 60,000 (S)	Environmental economics (6.1)	In kind	IIASA; OECD; UNIDO; regional economic commisssions; Governments

9.1.8 **Description:** Support to preparation, and dissemination, of films and posters on environmental aspects of energy.

Output: Films and posters.

Proposed allocation under subprogramme 9	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$100,000 (C1) $40,000 (S)	Capacity-building (11.2)	In kind	UNICs; UNIDO; Governments

9.1.9 Rephased activities from 1992-1993 biennium.

Proposed allocation under subprogramme 9	Interlinkages with, and Inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$220,000 (C1) $70,000 (S)		As relevant

2. **Programme element 9.1: overview of proposed resource allocation under subprogramme 9 (United States dollars)**

Activity	Core 1	Core 2	Supplementary	Total
9.1.1	210,000	90,000	60,000	360,000
9.1.2	200,000	50,000	50,000	300,000
9.1.3	200,000	0	40,000	240,000
9.1.4	150,000	50,000	50,000	250,000
9.1.5	80,000	20,000	50,000	150,000
9.1.6	150,000	100,000	60,000	310,000
9.1.7	250,000	50,000	60,000	360,000
9.1.8	100,000	0	40,000	140,000
9.1.9	200,000	0	70,000	290,000
Total	1,560,000	360,000	480,000	2,400,000

B. Programme element 9.2. Industry and Environment

1. Activities

9.2.1 **Description:** Operation of the Industry and Environment Programme Activity Centre and coordination and promotion of industry action to incorporate environmental considerations into industrial decisions; transfer of information and expertise between industry and the public sector; and support of strategic initiatives to increase industry awareness of skills in dealing with environmental issues.

Output: Preparation and wide dissemination of specialized information and documents covering clean technologies, recycling, emissions and waste management technologies and environmental management practices in various industrial sectors (three technical reports to be published); assistance to developing countries in the development and implementation of policy instruments, especially economic tools within industrial environment policies (one technical report); technical assistance to countries and support to demonstration activities to implement industrial environment policies; four issues of Industry and Environment Review issues per year; operation of a query-response system; and environmental input to technical activities of other organizations.

Proposed allocation under subprogramme 9	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$2,400,000 (C1) $100,000 (C2) $800,000 (S)	All subprogrammes	In kind	Internal, in cooperation with Governments and industry; United Nations; UNIDO; ILO; WHO

9.2.2 **Description:** Coordination of the Cleaner Production Programme (CPP) focusing on waste minimization as well as overall pollution prevention and energy efficiency.

Output: Improved operation of the CPP clearing-house for information exchange on low- and non-waste technology and environmentally sound management practices, training and awareness-raising activities, preparation and dissemination of cleaner production newsletter (two newsletters per year) and other material. Support to demonstration projects and technical assistance to countries and development of technology assessment methodologies.

Proposed allocation under subprogramme 9	Interlinkages with, and Inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,910,000 (C1) $750,000 (C2) $500,000 (S)	Toxic chemicals (8.1.3)	$625,000 (C1) $150,000 (C2) $180,000 (S)	Internal, in cooperation with UNIDO, ILO, UNCSID, UNITAR, ECA, ESCWA, and Governments

9.2.3 **Description:** Coordination of the APELL programme to prevent and respond to technological accidents.

Outputs: Documentation and training materials; APELL newsletter (two issues per year); national and regional experts trained through seminars/workshops, improved network for information exchange in emergency response and prevention; and cooperation in-house and with agencies in risk management.

Proposed allocation under subprogramme 9	Interlinkages with, and Inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,540,000 (C1) $500,000 (C2) $500,000 (S)	Community-preparedness for natural and man-made disasters (5.2) GEMS (10.2) IRPTC (10.4) Capacity-building (11.1)	In kind In kind In kind In kind	Internal, in cooperation with ILO, UNDRO, UNIDO, WHO, IAEA, IPCS, ECA, and ESCWA

2. Programme element 9.2: overview of proposed resource allocation under subprogramme 9 (United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
9.2.1	2,400,000	100,000	800,000	3,360,000
9.2.2	1,910,000	750,000	500,000	3,160,000
9.2.3	1,540,000	500,000	500,000	2,540,000
Total	5,850,000	1,350,000	1,800,000	9,000,000

C. Programme element 9.3. Transportation and environment

1. Activities

9.3.1 **Description:** Coordination of the transportation programme and promotion of environmentally sound transportation focusing on preparation and dissemination and documentation on less polluting and safer transport policies, systems and technologies.

Output: One regional training seminar, one technical report in 1994/1995 and two transportation newsletters per year and experts trained.

Proposed allocation under subprogramme 9	Interlinkages with, and Inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,040,000 (C1)	Atmosphere (1.1)	In kind	World Bank; Habitat;
$240,000 (C2)	Human Settlements (5.1)	In kind	United Nations; UNIDO; IPCS;
$320,000 (S)	Capacity-building (11.1)	In kind	Governments; regional
	Support and cooperation	In kind	economic commissions; ICAO

2. Programme element 9.3: overview of proposed resource allocation under subprogramme 9
(United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
9.3.1	1,040,000	240,000	320,000	1,600,000
Total	1,040,000	240,000	320,000	1,600,000

D. Programme element 9.4. Tourism and environment

1. Activities

9.4.1 **Description:** Coordination of tourism programme. Organization of one regional training seminar.

Output: Technical reports for tourism on environment issues; experts trained.

Proposed allocation under subprogramme 9	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$650,000 (C1)	Oceans (4.1)	In kind	UNESCO; WTO; Governments;
$150,000 (C2)	Capacity-building (11.1)	In kind	ESCAP; ECA; ESCWA; IUCN
$200,000 (S)	Support and cooperation	In kind	

2. Programme element 9.4: overview of proposed resource allocation under subprogramme 9
(United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
9.4.1	650,000	150,000	200,000	1,000,000
Total	650,000	150,000	200,000	1,000,000

E. Programme element 9.5. Working environment

1. Activities

9.5.1 **Description:** Incorporation of working environment issues into technical guides. Coordination of working environment activities.

Output: Information exchange and technical assistance activities; regional training workshops for employers and workers' organizations; and raising workers' awareness of training institutes.

Proposed allocation under subprogramme 9	Interlinkages with, and Inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$390,000 (C1)	Toxic chemicals (8.1)	In kind	ILO; WHO; UNIDO; IPCS;
$90,000 (C2)	Environmental health (5.4)	In kind	Governments; ESCWA
$120,000 (S)	Soils (3.1)	In kind	
	Support and cooperation	In kind	
	Capacity-building (11.1)	In kind	

2. Programme element 9.5: overview of proposed resource allocation under subprogramme 9
(United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
9.5.1	390,000	90,000	120,000	600,000
Total	**390,000**	**90,000**	**120,000**	**600,000**

F. Total proposed resource allocation under subprogramme 9 (United States dollars)

Programme element	Core 1	Core 2	Supplementary	Total
9.1	1,560,000	360,000	480,000	2,400,000
9.2	5,850,000	1,350,000	1,800,000	9,000,000
9.3	1,040,000	240,000	320,000	1,600,000
9.4	650,000	150,000	200,000	1,000,000
9.5	390,000	90,000	120,000	600,000
Total	9,490,000	2,190,000	2,920,000	14,600,000

III. SYSTEM-WIDE PROGRAMME

A. System-wide strategy

The system-wide strategy is set out in the system-wide medium-term programme 1990-1995, paragraphs 272-278, 287-292 and 299-303.

B. Activities of the United Nations system and other organizations

WHO — Continued review of occupational health and safety as well as working aspects of specific industrial sectors; establishment of guidelines, particularly on harmonized methods and quality assurance in the evaluation of exposure to airborne contaminants in the work environment and on control of health hazards in small-scale industries; preparation of an international directory on databases and banks on occupational health; preparation of training modules for environmental hazards control at the workplace and training of field personnel; technical cooperation in development of national guideline values on exposure limits and on specific environmental health problems of industrial operations.

IAEA — Comparative assessment of health and environmental impacts of nuclear power and other energy sources; codes and guides for safety of nuclear installations: safe siting, design, construction and operation of nuclear power plants; nuclear power plant ageing; operational safety reviews; Incident Reporting System database; and assessment of events of significance to safety in nuclear installations.

ECE — Studies on the interface between energy and the environment, in particular, sustainable development; interrelationship between environmental and energy policies; new and renewable sources of energy; impact of the fluidized-bed thermal power stations on the environment; implication of climate change for electric supply; the greenhouse problem; general situation in electric power industry; gas industry and the environment; launching of a campaign on energy efficiency 2000.

ESCAP — Development of guidelines on pollution monitoring and industrial pollution control and hazardous wastes management, strengthening capacities of countries in the region in the control of transboundary movement of hazardous wastes. Sectoral environmental impact assessment: Assist countries in the region on energy development and management studies, sectoral energy demand studies, assessments of conservation on potential by end-use sector, promotion of energy efficient appliances and equipment, environmental management of power systems, and rural energy planning and promotion of new and renewable sources of energy.

ILO — The occupational safety and health programme gives particular priority to the safe use of chemicals at work and the prevention of major industrial accidents. Working environment issues are also included in the programme of sectoral activities, for example as regards steel mills, mines, tanneries, pulp mills and chemical plants. Extensive training activities are carried out related to the working environment, particularly for employers' and workers' organizations.

IMO — Development of regulations for the safe transport by sea of hazardous materials; assistance to States in implementation.

United Nations — Assists developing countries in exploiting and efficiently managing their indigenous energy resources. Through detailed energy conservation audits, promoting more efficient energy utilization in the industrial, transport, residential, commercial and domestic sectors to conserve energy and reduce emissions, facilitating higher efficiency and lower emissions from fossil-fuel-burning electric power plants; environmental monitoring of coal-mining activities, increased coal-washing capabilities and adoption of desulphurization technologies; protection of fragile ecosystems from geothermal waste fluid disposal; socio-economic impact analysis for small hydropower plants; design of solar, wind and multi-source new and renewable energy projects to promote the use of environmentally benign energy sources; fuel substitution, such as the utilization of flared refinery gas for cooking purposes in large institutional kitchens to replace fuelwood.

Organization of international seminars on the environmental aspects of energy production, transportation and utilization. Development of environmentally acceptable master plans for the transport sector, and technical assistance in reducing noise and air pollution through traffic management and transportation planning, including assistance in regulatory aspects.

ICAO — Study of environmental problems associated with civil aviation and identification of appropriate solutions, such as the development of standards for noise certification of aeroplanes and for control of gaseous emissions through an aircraft engine certification scheme (Annex 16 to the Convention on International Civil Aviation).

IPCS — Continued development and publication of environmental health criteria for industrial pollutants and for pollutants arising from alternative transport, systems and technologies; the development of health and environment based guideline values for exposure to pollutants found in the occupational field; support of the health sector in prevention and responding to technological accidents at local level (APELL).

UNIDO — Promotes clean energy in three ways: (a) alternative clean fuel programmes (cleaner coal and oil, emission control); (b) efficiency in combustion processes and energy conservation; (c) alternative clean energy sources (solar, hydropower, hydrogen). UNIDO aims its industrial environment and energy information products and databases at small- and medium-sized enterprise in developing countries, and operates an industrial environment and energy information system which includes: provision of awareness, reference and query-answering services; creation of PC- and mainframe databases; and production and dissemination of information packages in various formats.

A major joint endeavour is the national cleaner production centres (NCPCs) programme, launched in 1992. Centres will serve a coordinating and catalytic role for cleaner production by providing technical information and advice, stimulating demonstrations of cleaner production techniques and technologies, and training industry and government professionals. UNIDO also cooperates closely with UNEP IE/PAC on its technical guideline series. Another important programme of UNIDO relates to demonstration of cleaner production techniques at the plant level. Projects highlight the large untapped potential for waste reduction in industry that can be implemented with relatively inexpensive means and which, at the same time, increase production efficiency. In the area of transportation, UNIDO is involved in the engineering and application of more efficient and, hence, more environmentally sound transport systems.

SUBPROGRAMME 10. EARTHWATCH DATA, INFORMATION, ASSESSMENT AND EARLY WARNING

I. PROGRAMME STRATEGY OF UNEP

A. Strategy

1. Earthwatch will continue to catalyse:

(a) The provision of the data and information required to support the rational use of environmental resources, sustainable management and decision-making;

(b) The production of comprehensive sectoral and multidisciplinary assessments in each of the concentration areas in cooperation with the appropriate United Nations agencies.

2. Timely and relevant scientific information will enable decision makers to protect and enhance their environment in accordance with Agenda 21. To this end, Earthwatch will continue to develop and strengthen:

(a) Global, regional and national monitoring, assessment and information networks;

(b) Global, regional and national information compilation, distribution and exchange;

(c) Access to information and environmental expertise.

3. Earthwatch will help to identify emerging problems, assess risks and issue early warnings where required. Based on the assessments and in association with management, policy will be proposed to reduce risks, combat environmental degradation and manage resources. Earthwatch will work on the production of global state-of-the-environment reports at regular intervals.

B. Legislative authority

4. The legislative authority for the subprogramme derives from the revised United Nations medium-term plan 1992-1997 (A/47/6/Rev.1), programme 16 (Environment); General Assembly resolutions 44/224, 44/226, 44/228, 46/217; Agenda 21, particularly chapters 38 and 40 (other relevant parts of Agenda 21 are indicated in parentheses in paragraphs 5 and 6 below); and Governing Council decisions 15/1, 15/13, 15/28-15/30, 15/32, 15/33, 15/38, 15/39, 15/40, SS.II/4, 16/23, 16/25, 16/37 and 16/38.

C. Agenda 21 priorities for UNEP

5. Earthwatch activities cut across many of the Agenda 21 chapters. The Agenda 21 priorities for UNEP can be grouped in different clusters:

(a) Systematic and long-term data and information collection in the different sectoral areas addressed by Agenda 21 (paras. 7.17, 11.4, 12.7, 14.39, 15.6, 17.35, 17.100, 18.12, 18.27, and 35.12);

(b) Research and development of methodologies (paras. 5.6, 15.5, 17.100, 18.12, and 35.12);

(c) Development and maintenance of global and regional databases in different sectoral and cross-sectoral areas (paras. 5.25, 14.39, 17.66, 17.103, 17.130, 19.40, and 35.12);

(d) Development and strengthening of national monitoring and assessment activities, information bases and communications systems (paras. 7.33, 18.27, and 35.22);

(e) Exchange and integration of information and data at the national, regional and global levels (paras. 12.9, 15.7, 17.8, 17.121, 18.14, and 35.17);

(f) Incorporation of environmental information in the decision-making process and development planning (paras. 8.5, 15.6, and 18.43);

(g) Inventory and assessment activities of the status of natural resources (paras. 11.14, 13.7, 17.8, 17.57, 17.87, 18.12, and 18.23);

(h) Risk assessment and early warning (paras. 12.49, 18.12, 18.27, 18.40, 19.40, and 35.9);

(i) Development of environmental indicators (paras. 12.10, and 17.8).

6. Chapter 40 of Agenda 21 is devoted to "information for decision-making" and, inter alia, refers to the need to strengthen the different elements within the system-wide Earthwatch (para. 40.13). Of particular relevance to this subprogramme are:

(a) Programme area A (Bridging the data gap) and, in particular:

(i) Development and use of indicators for sustainable development at the national and international level (para. 40.6);

(ii) Improvement of data collection activities, including those of Earthwatch, making use of new techniques, including satellite-based remote sensing (para. 40.8);

(iii) Improvement of methods of data assessment and analysis, including the development of data and information centres and making use of geographic information systems, expert systems, models, etc. (para. 40.9);

(iv) Establishment of comprehensive information frameworks at the national and international levels, integrating environmental and developmental information (para. 40.10);

(v) Establishment of supporting mechanisms to provide local communities and resource users with the information and know-how they need to manage their environment (para. 40.11);

(b) Programme area B (Improving availability of information) and, in particular:

(i) Transformation of existing information into forms more useful for decision-making and targeted at different user groups (para. 40.22);

(ii) Harmonization of data, data and information exchange procedures, and communication interfaces (para. 40.23);

(iii) Improved access to information (para. 40.23);

(iv) Development of, and strengthening activities dealing with, the documentation about information sources, including strengthening of INFOTERRA activities (para. 40.24);

(v) Improved sharing of information and experience, involving all sectors of society (para. 40.24);

(vi) Establishment and strengthening of electronic networking capabilities (para. 40.25);

(vii) Making information available and accessible to developing countries (para. 40.26).

II. PROGRAMME ELEMENTS

A. Programme element 10.1. Earthwatch coordination and early warning

1. Activities

10.1.1 **Description:** Coordination of the United Nations system-wide Earthwatch; strengthening inter-agency cooperation in the field of monitoring, assessment and early warning; encouraging long-term monitoring and archiving of data; identification of emerging or unanticipated threats and issuance of early warnings as appropriate; secretariat for the inter-agency consultations on Earthwatch; improvement of information dissemination, production and distribution of Earthwatch outputs.

Output: Earthwatch meeting and progress reports, early warning reports, guidelines.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$610,000 (C1)	All subprogrammes	In kind	Direct implementation in cooperation with relevant agencies of the United Nations system; Governments

10.1.2 **Description:** Support to production of multidisciplinary and sectoral assessments.

Output: Assessment reports by agencies and other bodies.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$100,000 (C1) $320,000 (S)	All subprogrammes	In kind	All relevant agencies of the United Nations system; Governments; WRI; MARC; NASA; USGS; ISRIC; IUCN; ISSS

10.1.3 **Description:** Support to and coordination of the development and use of environmental indicators, with an emphasis on indicators appropriate to developing countries and regions.

Output: Reports on suitable indicators in each concentration area and possible comprehensive environmental indices; indicators used in various assessments.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$100,000 (C1) $40,000 (C2)	Environmental economics	In kind	Direct implementation in cooperation with relevant agencies of the United Nations system; Governments

10.1.4 **Description:** Support to and coordination of the production of overviews of emerging environmental issues and environmental processes and phenomena of global significance (in cooperation with related state-of-the-environment activities) and development of approaches to early warning.

Output: Reports on emerging environmental issues.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$100,000 (C1) $100,000 (C2)	All subprogrammes	In kind	Direct implementation in cooperation with relevant agencies of the United Nations system; Governments

10.1.5 **Description:** Review of the implementation of environmental monitoring and assessment requirements of Agenda 21 by the international community, and identification of gaps and needs (in cooperation with the Commission on Sustainable Development).

Output: Status reports on monitoring and assessment.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$100,000 (C1) $100,000 (C2)	GEMS	In kind	Direct implementation in cooperation with relevant agencies of the United Nations system; Governments

2. **Programme element 10.1: overview of proposed resource allocation under subprogramme 10 (United States dollars)**

Activity	Core 1	Core 2	Supplementary	Total
10.1.1	610,000	0	0	610,000
10.1.2	100,000	0	320,000	420,000
10.1.3	100,000	40,000	0	140,000
10.1.4	100,000	100,000	0	200,000
10.1.5	100,000	100,000	0	200,000
Total	1,010,000	240,000	320,000	1,570,000

B. **Programme element 10.2. Global Environment Monitoring System (GEMS)**

1. **Activities**

10.2.1 **Description:** Coordination of the Global Environment Monitoring System Programme Activity Centre (GEMS/PAC).

Output: Scientific and technical publications (specific assessments, data quality and harmonization, guidelines/manuals on methodology development, environmental data reports) and popular versions and assessment statements for awareness-building; computerized, coordinated databases on environmental data, which are accessible to a wide variety of users; strengthened environmental information networks and monitoring and assessment capabilities, through technical assistance and training at regional and national levels.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$3,850,000 (C1) $250,000 (C2) $500,000 (S)	All subprogrammes	In kind	Direct implementation in cooperation, with Governments, United Nations agencies and other international bodies and national bodies

10.2.2 **Description:** Support to the Monitoring and Assessment Research Centre.

Output: Environmental data reports including assessment statements in the area of contaminants.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
In kind	SOE (10.6.2)	$900,000 (C1) $300,000 (C2)	MARC; WHO; FAO
	Atmosphere	In kind	
	Terrestrial ecosystems	In kind	
	Oceans	In kind	
	Community preparedness	In kind	
	Environmental health	In kind	
	Toxic chemicals	In kind	
	Industry, energy	In kind	
	Earthwatch (10.1) (10.4.4)	In kind	

10.2.3 **Description**: Support to the HEM secretariat to continue development of a HEM metadatabase, development of a directory of reference materials, harmonization of natural resource classifications and harmonization of sectoral environmental measurements.

Output: Reports, directory, guidelines, database.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$400,000 (C1) $100,000 (C2) $100,000 (S)	All subprogrammes	In kind	Government of Germany

10.2.4 **Description**: Coordinate and support the network to assess the impact of global change on terrestrial ecosystems to issue early warnings.

Output: Reports on the impact of global change on terrestrial ecosystems.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$300,000 (C1) $200,000 (C2)	Atmosphere (1.1.3) Forests (3.3.1) Earthwatch (10.1)	In kind	UNESCO; WMO

10.2.5 **Description**: Coordination and support of the GEMS air, food, HEALs and GERMON monitoring networks including global networking, global database operation, quality assurance and harmonization, methodology development, production of assessments, early warning, and training.

Output: Assessment reports and statements, manuals, guidelines, databases, trained experts.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$400,000 (C1) $240,000 (C2) $220,000 (S)	Human settlements (5.1.3) Environmental health Earthwatch (10.1)	In kind In kind	WHO: $500,000; IAEA: $20,000; FAO; WMO; UNCHS; MARC; Governments; institutes; regional bodies; non-governmental organizations

10.2.6 **Description**: Coordination and support of the water monitoring network including networking, global database operation, quality assurance and harmonization, methodology development, production of assessments, early warning, and training.

Output: Assessment reports, manuals, guidelines, database, trained experts.

Proposed allocation under subprogramme	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$490,000 (C1) $200,000 (C2) $300,000 (S)	Freshwater resources Oceans Hazards of pollution Earthwatch (10.1)	In kind In kind In kind In kind	WHO: $400,000; WMO; UNESCO; Governments and institutes; regional bodies; SADCC; HYDROMET

10.2.7 **Description**: Support to the next global forest assessment.

Output: Guidelines, preliminary assessments for selected areas.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$100,000 (C1) $200,000 (C2) $100,000 (S)	Forests (3.3.6) Earthwatch (10.1)	 In kind	FAO; WCMC; IUCN; USDA-FS

10.2.8 **Description:** Support to a global assessment on land cover/land use.

Output: Guidelines, assessments for selected areas, preliminary global assessment.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$400,000 (C1) $100,000 (C2) $100,000 (S)	Soils Desertification Earthwatch (10.1) (10.5)	In kind In kind In kind In kind	FAO; ISRIC; USGS; NASA; USEPA; USDA-FS

10.2.9 **Description:** Support to the World Conservation Monitoring Centre.

Output: Biodiversity reports and assessments.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
In kind	Biodiversity (3.4.1) Earthwatch (10.1) (10.6.3)	 In kind $800,000 (C1) $100,000 (C2)	WCMC; IUCN; WWF

10.2.10 **Description:** Support to regional information networks, including coordination, capacity-building, technical support to development and implementation of regional environmental information programmes, training, expert input and support for developing national EIS capabilities for management of environmental resources, including technology transfer, on-the-job training and backstopping.

Output: Operational environmental information system networks with trained personnel.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$600,000 (C1) $300,000 (C2) $700,000 (S)	Atmosphere Desertification Oceans Earthwatch (10.1) (10.5.5) (10.6) Capacity-building Support and cooperation	In kind In kind In kind In kind In kind In kind In kind	UNITAR; SPREP; ICIMOD; WHO; UNDP; ESCAP; AIT; International Training Centre; AGRYMET; ECA; RCSSMRS; RCU/CAP; ESCWA; ECLAC; other regional bodies; Governments

10.2.11 Rephased activities from the biennium 1992-1993.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements	Cooperating agencies/supporting organizations
$100,000 (C1)	-	-

2. **Programme element 10.2: overview of proposed resource allocation under subprogramme 10 (United States dollars)**

Activity	Core 1	Core 2	Supplementary	Total
10.2.1	3,850,000	250,000	600,000	4,700,000
10.2.2	0	0	0	0
10.2.3	400,000	100,000	100,000	600,000
10.2.4	300,000	200,000	0	500,000
10.2.5	400,000	240,000	220,000	860,000
10.2.6	490,000	200,000	300,000	990,000
10.2.7	100,000	200,000	100,000	400,000
10.2.8	400,000	100,000	100,000	600,000
10.2.9	0	0	0	0
10.2.10	600,000	300,000	700,000	1,600,000
10.2.11	100,000	0	0	100,000
Total	6,640,000	1,590,000	2,120,000	10,350,000

C. **Programme element 10.3. INFOTERRA**

1. **Activities**

10.3.1 **Description:** Operation of INFOTERRA Programme Activity Centre including coordination of worldwide INFOTERRA networks, establishment and maintenance of database. Assistance to developing countries in capacity-building in information provisions.

Output: Substantive environmental information provided to at least 20,000 users per year, network training of 20 focal points, 12 national seminars, two regional management meetings per year.

Proposed allocation under subprogramme 10	**Interlinkages with, and inputs from, other subprogrammes**		**Cooperating agencies/supporting organizations**
$1,650,000 (C1) $200,000 (C2) $190,000 (S)	All subprogrammes	In kind	Internal, in cooperation with ILO; UNESCO; WCMC; UNIDO; WHO; FAO; WMO; UNDP and other United Nations agencies as required; IUCN; WWF; ICRAF; Comm. Agric. Int.; and other international organizations as required; and Governments in 155 countries (Total contribution (in kind): $1,000,000)

10.3.2 **Description:** Improved substantive information delivery.

Output: On-line access provided to national and international databanks; contracts with 35 Special Sectoral Sources and eleven Regional Service Centres (ongoing).

Proposed allocation under subprogramme 10	**Interlinkages with, and inputs from, other subprogrammes**		**Cooperating agencies/supporting organizations**
$310,000 (C1) $80,000 (C2)	All subprogrammes	In kind	Same as activity 10.3.1 above (Total contribution (in kind): $400,000)

10.3.3 **Description:** Expansion of all publications to include sustainable development priority areas.

Output: INFOTERRA International Directory, INFOTERRA specialized directories, Environmental Experience Exchange series, INFOTERRA Bulletin, video, promotional materials, NFP Directory and specialized directories in priority areas.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$300,000 (C1) $80,000 (C2)	Capacity-building	In kind	Internal; IUCN

10.3.4 **Description:** Support for developing countries to strengthen their institutional capabilities for storing and retrieving environmental information and increase regional exchange.

Output: Six-ten developing countries assisted in strengthening their capacity of handling and provision of environmental information through training and/or provision of equipment.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$200,000 (C1) $80,000 (C2) $150,000 (S)	Capacity-building	In kind	Governments; UNDTCD; UNDP; World Bank; IOC; WMO; UNIDO; EC; WWF; (Total contribution (in kind): $350,000); USA: counterpart contribution of $20,000

10.3.5 **Description:** Establishment of electronic communication network.

Output: Established linkages between NFPs and gateways provided to selected national and international databases.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$110,000 (C1) $100,000 (C2) $220,000 (S)	All subprogrammes (plus regional offices)	In kind	Governments; United Nations agencies in cooperation with major environmental information systems; regional offices ($350,000 in kind); ESCWA; ESCAP

10.3.6 **Description/output:** Support and coordination with UNEP regional offices and allied United Nations information activities.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$100,000 (C1) $100,000 (C2) $220,000 (S)	All subprogrammes	In kind	UNEP regional offices; UNDP

10.3.7 **Description:** Monitoring of development of technologies relevant to sustainable development.

Output: Report.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$40,000 (C1) $20,000 (C2) $100,000 (S)	Industry and environment	In kind	UNDP; GATT; UNCTAD; UNIDO; World Bank; Governments

2. Programme element 10.3: overview of proposed resource allocation under subprogramme 10 (United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
10.3.1	1,650,000	200,000	190,000	2,040,000
10.3.2	310,000	80,000	0	390,000
10.3.3	300,000	80,000	0	380,000
10.3.4	200,000	80,000	150,000	430,000
10.3.5	110,000	100,000	220,000	430,000
10.3.6	100,000	100,000	220,000	420,000
10.3.7	40,000	20,000	100,000	160,000

D. Programme element 10.4. International Register of Potentially Toxic Chemicals (IRPTC)

1. Activities

10.4.1 **Description:** Coordination of information exchange on chemicals through a central computerized databank connected with a global network of partner institutions.

Output: The outputs comprise:

(a) Widely distributed chemical databanks connected with a global network of partner institutions;

(b) Technical data compilations, bulletins, assessment reports and a query-response service providing increased awareness of chemical hazards;

(c) Technical assistance for the establishment of national information systems;

(d) Professionals trained in chemical hazard identification and risk assessment through regional and national training activities.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$4,600,000 (C1) $650,000 (C2) $550,000 (S)	All subprogrammes	In kind	Direct implementation in cooperation with Governments; United Nations agencies; other international and national bodies, and industries

10.4.2 **Description:** Preparation and wide dissemination of data profiles, other data compilations and regular bulletins on chemicals for use in hazard assessment, risk evaluation and risk reduction activities.

Output: A personal computer version of the IRPTC databank widely disseminated; on-line access to the central files; widely distributed technical/regulatory data compilations and regular bulletins.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$500,000 (C1) $150,000 (C2) $250,000 (S)	Environmental health (5.3.1) Toxic chemicals (8.1.1)	FAO; IPCS; other NGOs; Governments; industry

10.4.3 **Description:** Support for the further development and application of harmonized procedures and programmes for information exchange on chemicals.

Output: Improved access to the IRPTC databank and intensified data flow among network partners.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$500,000 (C1) $150,000 (C2) $150,000 (S)	Environmental health Toxic chemicals	In kind In kind	FAO; IPCS; other IGOs

10.4.4 **Description:** Support for the preparation of assessments of global chemical pollution problems, including data collection and validation, peer review and early warning.

Output: Regular assessment reports on critical chemical issues of global significance for wide dissemination.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$150,000 (C1) $50,000 (C2) $150,000 (S)	Earthwatch (10.1) (10.2) (10.6.2)	In kind In kind	FAO; IPCS; MARC; ESCWA; ESCAP
	Industry and environment	In kind	
	Environmental health	In kind	
	Terrestrial ecosystems	In kind	
	Oceans	In kind	
	Atmosphere	In kind	
	Community preparedness	In kind	
	Toxic chemicals	In kind	

10.4.5 **Description:** Operation of a query-response service providing data, documentation and advice on chemicals for hazard assessment and risk reduction measures.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$100,000 (C1) $50,000 (C2) $50,000 (S)	Environmental health Industry, energy	In kind In kind	FAO; IPCS; other IGOs; Governments; industry

10.4.6 **Description:** Support for the implementation of the Amended London Guidelines for the Exchange of Information on Chemicals in International Trade.

Output: An operational computer assisted databank on banned and severely restricted chemicals widely distributed.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$200,000 (C1) $50,000 (C2) $150,000 (S)	Environmental law Toxic chemicals (8.1.2)	In kind	FAO

10.4.7 **Description:** Support for the implementation of the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.

Output: A databank and technical guidance tools for use by waste managers.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$50,000 (C1) $100,000 (C2) $50,000 (S)	Toxic chemicals (8.1.3) Industry and environment (9.2.2) Basel Convention Secretariat	In kind	FAO; IPCS; regional institutions/bodies; Governments

10.4.8 **Description:** Capacity-building in the framework of the implementation of the Amended London Guidelines for the Exchange of Information on Chemicals in International Trade directed at assistance to developing countries strengthening their institutional capabilities for the assessment and control of chemical hazards.

Output: Developing countries assisted in establishing national registers of potentially toxic chemicals; training workshops for professionals in hazard identification and risk assessment techniques and procedures.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$580,000 (C1) $450,000 (C2) $850,000 (S)	Environmental health Environmental law Toxic chemicals (8.1.2) Industry and environment Support and cooperation Capacity-building	In kind In kind In kind In kind In kind	FAO; IPCS; regional institutions/bodies; Governments

10.4.9 Rephased activities from 1992-1993 biennium.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$200,000 (C1)		

2. **Programme element 10.4: overview of proposed resource allocation under subprogramme 10**
(United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
10.4.1	4,600,000	650,000	550,000	5,800,000
10.4.2	500,000	150,000	250,000	900,000
10.4.3	500,000	150,000	150,000	800,000
10.4.4	150,000	50,000	150,000	350,000
10.4.5	100,000	50,000	50,000	200,000
10.4.6	200,000	50,000	150,000	400,000
10.4.7	50,000	100,000	50,000	200,000
10.4.8	580,000	450,000	850,000	1,880,000
10.4.9	200,000	0	0	200,000
Total	6,880,000	1,650,000	2,200,000	10,730,000

E. Programme element 10.5. Global Resource Information Database

1. Activities

10.5.1 **Description:** Core activities of the GRID Programme Activity Centre.

Output: Operational GRID/PAC for the coordination and management of the GRID network of cooperating centres engaged in spatial geo-referenced database development and maintenance; strengthened environmental information handling capabilities at national and regional levels; GIS and image processing application project support provided to national institutions, international organizations and United Nations agencies.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$800,000 (C1) $160,000 (S)	All subprogrammes	In kind	Direct implementation in cooperation with Governments, United Nations agencies, and other international and national bodies

10.5.2 **Description:** Core activities of GRID centres (Geneva, Nairobi, Bangkok, Sioux Falls, Latin America).

Output: Operational GRID centres (includes staff costs, travel, premises, equipment, etc.) engaged in GRID data archiving and global data catalogue maintenance; data distribution to United Nations Member States, regional and national organizations, NGOs, universities and others; telecommunication links for data access provided; digital spatial geo-referenced database development; application project support to national institutions; international organizations and United Nations agencies provided; strengthened national and regional capabilities in environmental information handling and exchange.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,600,000 (C1) $200,000 (C2) $200,000 (S)	All subprogrammes	In kind	Direct implementation in cooperation with Governments, United Nations agencies, and other international and national bodies

10.5.3 **Description:** Regional and global database development to provide basic environmental geo-referenced data for environmental assessments and sustainable management of natural resources.

Output: Global land characterization (1-km data acquisition), archiving and validation completed; global community provided with access to GRID Meta-database.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$970,000 (C1) $200,000 (C2) $500,000 (S)	Desertification Oceans Earthwatch (10.1) (10.2.8) (10.6)	In kind In kind In kind In kind	USGS; NASA; EEC; AIT; ICIMOD; IGBP; CIESIN; WCMC; INPE; UNCHS; FAO; CGIAR; UNESCO; regional sectoral bodies; Governments

10.5.4 **Description:** Application projects to provide analytical support for environmental assessments, practical solutions to environment based problems, technology transfer, on-the-job training and backstopping. Emphasis to be in support of Earthwatch risk assessment and early warning scenarios.

Output: Two GIS application projects for each GRID cooperating centre including four-GEF projects (one in Arab States, one in Eastern Europe, one in Latin America and one in Africa).

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$600,000 (C1) $470,000 (C2) $300,000 (S)	All subprogrammes	In kind	USGS; NASA; EEC; AIT; ICIMOD; IGBP; CIESIN; WCMC; INPE; UNCHS; FAO; CGIAR; UNESCO; regional sectoral bodies; Governments; other regional bodies and commissions

10.5.5 **Description:** Support to regional information technology networks, including coordination, capacity-building, technical support to development and implementation of regional environmental information programmes, training, expert input and support for developing national EIS capabilities for management of environmental resources, including technology transfer, on-the-job training and backstopping. Support to the preparation of national and regional state-of-the-environment reports.

Output: Two regional information technology networks (one in Asia, one in Latin America) established and 20 countries provided with national baseline datasets in digital form; continuing support to 10 African national and three subregional centres, Arab States assisted in establishing an environmental information systems network, eight countries (two in Africa, three in Asia, three in Latin America) assisted in establishing national EIS capabilities through expert consultation, training and provision of GIS starter kits.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$900,000 (C1) $300,000 (C2) $400,000 (S)	Atmosphere Terrestrial ecosystems Oceans Earthwatch (10.1) (10.2.11) (10.6) Capacity-building Support and cooperation	In kind In kind In kind In kind In kind In kind In kind	UNITAR; SPREP; ICIMOD; WHO; ESCAP; AIT; ITC; AGRYMET; ECA; RCSSMRS; ECLAC; ESCWA; other regional bodies; Governments

10.5.6 Rephased activities from the biennium 1992-1993.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$50,000 (C1)	-	-

2. **Programme element 10.5: overview of proposed resource allocation under subprogramme 10 (United States dollars)**

Activity	Core 1	Core 2	Supplementary	Total
10.5.1	800,000	0	160,000	960,000
10.5.2	1,600,000	200,000	200,000	2,000,000
10.5.3	970,000	200,000	500,000	1,670,000
10.5.4	600,000	470,000	300,000	1,370,000
10.5.5	900,000	300,000	400,000	1,600,000
10.5.6	50,000	0	0	50,000
Total	4,920,000	1,170,000	1,560,000	7,650,000

F. Programme element 10.6. State of the environment

1. Activities

10.6.1 **Description:** Coordination and support to the preparation of comprehensive state-of-the-environment reports, identification of emerging environmental problems.

Output: State-of-the-environment reports; improved information dissemination on the state of the environment in support of Earthwatch.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$490,000 (C1)	Earthwatch (10.1.2)		Direct implementation
$200,000 (C2)	All subprogrammes	In kind	

10.6.2 **Description:** Support to the Monitoring and Assessment Research Centre for the production of environmental data reports including assessment statements in the area of contaminants.

Output: Environmental data reports including assessment statements in the area of contaminants.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$900,000 (C1)	Atmosphere	In kind	MARC; WHO; FAO
$300,000 (C2)	Terrestrial ecosystems	In kind	
	Oceans	In kind	
	Community preparedness	In kind	
	Environmental health	In kind	
	Toxic chemicals	In kind	
	Industry, energy	In kind	
	Earthwatch (10.1)	In kind	
	(10.2)	In kind	
	(10.4.4)		

10.6.3 **Description:** Support to the World Conservation Monitoring Centre.

Output: Biodiversity reports and assessments.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$800,000 (C1)	Biodiversity (3.4.1)		
$100,000 (C2)	Earthwatch (10.1)	In kind	
	(10.2)	In kind	

10.6.4 **Description:** Support to the World Resources Institute.

Output: World Resources Report and other reports.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations

10.6.5 **Description:** Support to the preparation of assessment reports on non-renewable resources.

Output: Report (biannual).

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$250,000 (C1)	Industry, energy	In kind	
$90,000 (C2)	Earthwatch (10.1)	In kind	

10.6.6 **Description:** Support to preparation of national and regional state-of-the-environment reports through support to regional information technology networks, including coordination, capacity-building, technical support to development and implementation of regional environmental information programmes, training, expert input and support for developing national EIS capabilities for management of environmental resources, including technology transfer, on-the-job training and backstopping.

Output: National and regional state-of-the-environment reports.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes/programme elements		Cooperating agencies/supporting organizations
$920,000 (S)	Atmosphere	In kind	UNITAR; SPREP; ICIMOD; WHO; ESCAP; AIT; ITC; AGRYMET; ECA; RCSSMRS; ECLAC; ESCWA; UNSO; other regional bodies; Governments
	Terrestrial ecosystems	In kind	
	Oceans	In kind	
	Earthwatch (10.1) (10.2.11) (10.5.5)	In kind	
	Capacity-building	In kind	
	Support and cooperation	In kind	

2. Programme element 10.6: overview of proposed resource allocation under subprogramme 10 (United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
10.6.1	490,000	200,000	0	690,000
10.6.2	900,000	300,000	0	1,200,000
10.6.3	800,000	100,000	0	900,000
10.6.4	400,000	0	0	400,000
10.6.5	250,000	90,000	0	340,000
10.6.6	0	0	920,000	920,000
Total	2,840,000	690,000	920,000	4,450,000

G. Programme element 10.7. United Nations Centre for Urgent Environmental Assistance

1. Activities

10.7.1 **Description:** When operational the United Nations Centre for Urgent Environmental Assistance (UNCUEA) will work with agencies, organizations and Governments to aid them in responding quickly to emergencies resulting from human actions. UNCUEA will help to gather and focus the right expertise on a specific accident, so enhancing the work of individual agencies in a cost effective manner including technology transfer, on-the-job training and backstopping.

Output: Database of national capabilities in emergency response; rosters of selected experts ready and able to travel to accident sites; rosters of selected stores and equipment available for emergency response; functional communications network to bring together specialists, equipment, transport, etc., quickly in support of international response intentions.

Proposed allocation under subprogramme 10	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$2,000,000 (C1)	All subprogrammes	In kind	United Nations agencies; Governments

2. Programme element 10.7: overview of proposed resource allocation under subprogramme 10 (United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
10.7.1	2,000,000	0	0	2,000,000
Total	2,000,000	0	Omep	2,000,000

H. Total proposed allocation of resources under subprogramme 10 (United States dollars)

Programme element	Core 1	Core 2	Supplementary	Total
10.1	1,010,000	240,000	320,000	1,570,000
10.2	6,640,000	1,590,000	2,120,000	10,350,000
10.3	2,710,000	660,000	880,000	4,250,000
10.4	6,880,000	1,650,000	2,200,000	10,730,000
10.5	4,920,000	1,170,000	1,560,000	7,650,000
10.6	2,840,000	690,000	920,000	4,450,000
10.7	2,000,000	0	0	2,000,000
Total	27,000,000	6,000,000	8,000,000	41,000,000

II. SYSTEM-WIDE PROGRAMME

A. System-wide strategy

The system-wide strategy is set out in the System-wide medium-term environment programme 1990-1995, paragrapns 334-339 and 345-351.

B. Activities of the United Nations system and other organizations

United Nations — Operation of some 30 information systems and databanks, many of which provide information of environmental relevance (including the Dag Hammarskjold Library, the Bibliographic Information System, the Development Information System, the Population Information Network, statistical bulletins, yearbooks and data books). Development of concepts and methods of environmental statistics and accounting.

Regional commissions — Operation of economic information systems and databanks, notably the ECLAC Latin American Centre for Economic and Social Documentation (CLADES), the ESCAP Documentation Information System and the ECA Pan-African Documentation and Information System (PADIS). ESCAP also has a database on environment and prepares periodic reports on the state of the environment in Asia and the Pacific. Environmental statistics programmes (ECE, ECA).

UNCHS — Development of a unified terminology and information system for human settlements. Development of an extensive databank on 40,000 cities. Implementation of a sustainable cities project.

UNIDO — Operation of INDIS and INTIB, providing information relating to all aspects of industrial development and technical alternatives. In addition, UNIDO is involved in the development and dissemination of industrial environment and energy information products and databases aimed at small- and medium-sized enterprises in developing countries. It is also establishing networking mechanisms in member States to strengthen their ability to collect, store and disseminate industrial environment and energy information in both conventional and machine-readable form. Lastly, UNIDO is involved in the operation of an awareness, reference, and query-answering services; creation of PC- and mainframe databases; and production and dissemination of information packages in various formats (journal, directory, and diskette).

UNDP — Collection and dissemination by INRES of information on the capacities of developing countries that are available for technical cooperation activities with other developing countries. As a follow-up to Agenda 21, UNDP is implementing Capacity 21, a major programme for environmental and developmental capacity-building in developing countries; and initiating the Sustainable Development Network to improve access to environmental and developmental information.

Jointly with UNCHS and the World Bank, UNDP implements the urban management programme. UNDP, through the United Nations Sudano-Sahelian Office (UNSO) is supporting the Ecological Monitoring Centre in Dakar, Senegal and will assist related national initiatives in Uganda, Mali, Ghana and

ILO	Operation of some 15 information systems and databanks, with CIS most closely related to environmental issues. ILO monitors the implementation by member States of conventions and procedures pertaining to environmental protection and workplace safety. Periodic assessments are carried out on occupational safety, health hazards and the safe use of chemicals at work. ILO coordinates an international occupational and health alert system.
FAO	Operation of some 30 information systems and databanks, many of which are closely related to environmental issues. Cooperation in GIS development and GIS establishment in developing countries. FAO operates the Global Information and Early Warning System on Food and Agriculture (GIEWS), including crop and agrometeorological monitoring. In 1988 an Agricultural Real-Time Environmental Monitoring Information System (ARTEMIS) was installed. A communications system (DIANA) to disseminate information in Africa is under development. A broad range of ad hoc assessment activities including soil, soil degradation, forests, agricultural potential, etc., are carried out. Early-warning activities include crop yield forecasting and desert locust outbreak prediction.
UNESCO	Operation of some 40 information systems and databanks, of which the Man and Biosphere information system is the most closely related to environmental issues. Activities under the International Hydrological Programme (IHP), the International Geological Correlation Programme (IGCP) and the Intergovernmental Oceanographic Commission (IOC) included the development and review of appropriate monitoring and assessment methodology.
IOC	Operation of the Marine Environmental Data and Information System (MEDI), co-sponsored by FAO, UNESCO and UNEP; development of systems for storage and management of marine data and measures for exchange of marine information and data; regular observations of some physical and chemical variables of the world oceans are carried out under the IGOSS and Drifting Buoy Cooperation Panel programmes; sealevel monitoring under IGOSS, marine pollution monitoring under MARPOL. IOC has initiated the Global Ocean Observing System (GOOS).
WHO	Operation and information systems and databanks, including World Health Statistics. Appropriate Technology for Health Information System, and Epidemiological Information System; development of inter-country networks for training, information exchange and research in areas of epidemiology, environmental health impact assessment and planning. Promotion of health-related environmental monitoring through the continued operation of monitoring networks of global air and water quality at impact level, food contamination and environmental radioactivity, and through the implementation of a programme component on human exposure monitoring and assessment; activities directed towards the improvement and harmonization of methods and the acquisition of data which are comparable and valid; strengthening of national capabilities in monitoring and assessment through training and other means of technical cooperation; preparation of periodic assessments of global/regional selected pollution problems, the emerging environmental conditions and their impacts on public health. Specific subprogrammes addressing environmental monitoring and assessment include: (i) community water supply and sanitation; (ii) environmental health in rural and urban areas; (iii) promotion of chemical safety; (iv) control of environmental hazards; (v) food safety; and, (vi) vector-borne diseases. The IPCS programme evaluates the effects of chemicals, physical and biological agents on health. A report on potential health effects of climate change has been produced.
ECE	Preparation of the compendium of ECE environmental statistics; elaboration of detailed standard classification for environmental statistics. Monitoring and evaluation of data related to airborne pollution (EMEP), information exchange on occurrences of sudden and severe damage to forests. Major emphasis is placed on transboundary pollution, effects and impacts of air, water and soil pollutants and contaminants; waste (chemical, toxic and nuclear) disposal; emission of various chemical and gases and mapping of critical loads and levels for sensitive ecosystems and their exceedances. Annual reviews of national policies and monitoring of agreements and conventions by member countries is carried out. ECE also coordinates the implementation of declarations regarding the conservation of flora, fauna and their habitat. Provisions for early warning are contained in the ECE principles regarding cooperation in the field of transboundary waters (1987), the code of conduct on accidental pollution of transboundary inland waters (1990) as well as in the two conventions on the protection and use of transboundary watercourses and international lakes and on transboundary impact of industrial accidents.
World Bank	Operation of seven information systems, including the documentation referral and the Interactive Indexing System. The World Bank supports several ad hoc environmental assessments, e.g. the Sub-Saharan Africa Hydrological Assessment and cooperates in several inter-agency programmes including the urban management programme. The World Bank is one of the implementing organizations of GEF.
WMO	Operational and non-real-time collection, processing and dissemination of information on weather, climate and environmental threats, using the World Weather Watch and the Global Atmosphere Watch.

	Climate monitoring and climate-change detection projects, including regular assessments of climate, its variability and change, and dissemination of the results.
	Operation of INFOCLIMA information system, providing meteorological and other environmental information, including information from World Weather Watch.
	Water resources monitoring and assessment activities and strengthening of institutional capabilities for Water Resources assessment are carried out under the Hydrology and Water Resources Programme. The HOMS subprogramme, promotes technology transfer and the exchange of information and experience in the hydrological field. Strengthening national capabilities for flood and drought forecasting is another area being addressed.
IMO	Maintenance of a specialized collection of literature in the field of prevention and control of marine pollution and safety of life at sea. Environmental interests include: oil and chemicals at sea, garbage, sewage and waste disposal into the sea; movement of hazardous waste and reception facilities. Assessments covering these areas are prepared on a periodic basis.
IAEA	Operation of seven information systems and databanks, with INIS as the major system of environmental relevance.
	Nuclear analytical techniques in the monitoring of health-related environmental pollution; laboratory services to BAPMoN; establishment or improvement of capabilities for monitoring and assessment of environmental radioactivity and of foodstuff contamination resulting from a major accident; models for the atmospheric transport of radionuclides. Quality assurance support is provided to different international monitoring programmes covering air and water (freshwater and oceans) monitoring and pesticide residue analysis. An emergency response unit is operated in Vienna in accordance with provisions of the Convention on the Early Notification of a Nuclear Accident or Radiological Emergency.
IUCN	In cooperation with GRID, establishment of databases on critical sites for conservation of biodiversity, protected areas, endangered species, etc.
Other organizations	Many other organizations have information systems, some of them covering a number of environmental concerns. These include the Referral Programme of Academic Services of UNU, the Documentation Centre of UNHCR, the databank on natural disasters operated by UNDRO, the ICAO information system on air safety, other organizations etc.

SUBPROGRAMME 11. CAPACITY-BUILDING FOR ENVIRONMENTALLY SOUND AND SUSTAINABLE DEVELOPMENT

I. PROGRAMME STRATEGY OF UNEP

A. Strategy

1. The broad strategy of subprogrammes 11 and 12 is to coordinate and strengthen analytical, policy, institutional and practical capabilities of countries for sustainable development. All other subprogrammes contribute to the realization of this subprogramme. Modalities for enhanced in-house, inter-agency, and inter-country coordination must be squarely addressed to meet the challenges posed by this subprogramme.

2. The specific purposes of subprogramme 11 are:

(a) To create and promote the individual's awareness and actions for environmental management;

(b) To promote human resources development for endogenous capacity-building for decision making and administration for sustainable development;

(c) To advance skill formation and human resources development through collaboration between developed and developing countries and among developing countries themselves, including information networking, transfer of technologies, and relevant education and training programmes;

(d) To strengthen the environmental elements throughout all levels of education systems of all countries in view of establishing sustainability as a key element for the future.

3. While the subprogramme addresses general environmental awareness, institutions, education and training, specialized scientific, technological, educational, training and other attributes of capacity-building are covered under the different specialized subprogrammes. This subprogramme will be implemented in cooperation with relevant United Nations agencies including UNDP, the World Bank, regional commissions, regional development banks, universities and other training institutions worldwide.

B. Legislative authority

4. The legislative authority for the subprogramme derives from the revised United Nations medium-term plan 1992-1997, (A/47/6. Rev.1), programee 16 (Environment); and General Assembly resolutions 42/186 and 44/228. Many Agenda 21 chapters are relevant, in particular, chapter 36, programme areas A-C, and chapters 37 and 38. Also relevant are parts of chapters 2, 3, 5, 6, 7, programme area H, 9, 10, 11, 12, programme area F, 14, 16, 17, 19, programme area E, 20, 24, 25, 29, 30, 32, 34 and 35, the Rio Declaration, principles 1, 9, 10, 20, 21, 22, and the conventions on climate change and biodiversity.

C. Agenda 21 priorities for UNEP

5. Agenda 21 highlights awareness-building for all target groups with education as the basis for all future development. A vastly increased output of trainees within a coordinated strategy at national, regional and sub-regional levels will be emphasized.

6. Many chapters and programme areas of Agenda 21 emphasize the importance of national capacity-building for sustainable development through public information, education, training and institution-building. While specialized human resources and institutional development will be addressed in the different specialized and technical areas, general concerns about capacity-building will be handled under this subprogramme, and partly also under subprogramme 12. The main agency assigned the capacity-building role in Agenda 21 is UNDP, with UNEP recognized to provide a supportive role. In fact, the entire United Nations system has a role to play if countries are to be meaningfully assisted in a coordinated manner.

II. PROGRAMME ELEMENTS

A. Programme element 11.1. Environmental education and training

1. Activities

11.1.1 **Description**: International Environmental Education Programme (IEEP), phase 9, modified to cover environment and development education. Introduction of strengthened environmental education for sustainable development at all levels of education in all countries.

Outputs: Improved information exchange and support for research and experimentation. Increased production and wide dissemination of high quality teaching/learning materials; educational personnel (planners, administrators, curriculum developers and teacher trainers) trained through national/regional workshops.

Proposed allocation under subprogramme 11	Interlinkages with, and inputs from, other subprogrammes/programme elements	Cooperating agencies/supporting organizations
$2,000,000 (C1) $300,000 (C2) $700,000 (S)	Capacity-building (11.2)	UNESCO: $2,000,000

11.1.2. **Description:** Environmental training, an umbrella activity for human resources development (capacity-building) in developing countries and countries in transition to help them manage their environment in a sustainable manner, using a combination of tailor-made training courses in environmental management (short-, mid- and long-term) to answer the needs of different levels of trainers from the entire spectrum of developing countries and countries in transition.

Outputs: Improved networking activities to promote the pooling of training materials, facilities and skills; strengthened institutional capacities to implement environmental training; advisory services to universities and other training institutions; development and wide dissemination of training manuals and related materials; 200-300 key cadres and decision makers trained in the theory and practice of integrated environmental resources management.

Proposed allocation under subprogramme 11	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$4,700,000 (C1) $600,000 (C2) $900,000 (S)	Specialized training under, among others, the GEMS, GRID, oceans, industry and environment, terrestrial ecosystems, environmental law, and environmental economics subprogrammes		UNESCO; ILO; UNIDO; UNDP; selected universities and other institution (e.g. Dresden, Germany, Tufts, in United States, International Academy of Environment, Geneva); Governments; regional economic commissions

11.1.3. **Description:** Support to the UNEP International Environment Technology Centre.

Outputs: Trained personnel

Proposed allocation under subprogramme 11	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,200,000 (C1)	Industry and environment (9.2)	In kind	Government of Japan; UNIDO

11.1.4. **Description:** Capacity-building in the field of environmental law and institutions, including:

(a) Human and institutional resources development through attachments to institutions, in-house training for senior government officials in the field of international environmental law from the developing countries, specialized national, regional and international training programmes for administrators and lawyers in environment ministries;

(b) National, regional and international workshops and training programmes for lawyers, policy makers and administrators in the field of international environmental law and institutions;

(c) Technical advisory services, on request, to assist developing countries and countries in transition to assess the existing legislative and institutional arrangements and develop strategies for assistance;

(d) Information exchange, publications half-yearly bulletin of texts of national legislation and international legal instruments, systematic collection and dissemination of texts on national legislation and international legal instruments, and publications on legal and institutional aspects of environmental management.

Outputs: Senior government officials trained in international environmental law; administrators and lawyers in environment ministries trained through specialized national, regional and international training programmes; administrators, lawyers and policy makers trained in international environmental law and institutions through national, regional and international workshops and training programmes; technical advisory services to assist developing countries assess existing legislative and institutional arrangements and develop strategies for assistance; two bulletins on national legislation and international legal instruments per year as well as other regular publications on legal and institutional aspects of environmental management; wide dissemination of texts on national legislation and international legal instruments.

Proposed allocation under subprogramme 11	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,000,000 (C1) $1,400,000 (C2) $400,000 (S)	Environmental law (7.1.6) Support and cooperation	In kind In kind	World Bank; United Nations; UNDP; UNITAR; regional development banks; regional commissions; IUCN

2. Programme element 11.1: overview of proposed resource allocation under subprogramme 11
(United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
11.1.1	2,000,000	300,000	700,000	3,000,000
11.1.2	4,700,000	600,000	900,000	6,200,000
11.1.3	1,200,000	0	0	1,200,000
11.1.4	1,000,000	1,400,000	400,000	2,800,000
Total	8,900,000	2,300,000	2,000,000	13,200,000

B. Programme element 11.2. Environmental awareness: public information

1. Activities

11.2.1 **Description:** Development of information programmes and co-production of information materials on major environmental issues and other social and economic programme related to environment and Agenda 21, such as international years and other special events organized by the United Nations family.

Outputs: Joint publications, posters, exhibits radio programmes, television productions, and videos.

Proposed allocation under subprogramme 11	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$400,000 (C1) $100,000 (C2) $300,000 (S)	All subprogrammes	Staff interaction	United Nations (DPI); United Nations; specialized agencies, ESCAP, ECA, ESCWA

11.2.2. **Description:** Implementation of the UNEP publishing programme.

Outputs: Production of:

(a) UNEP magazine and other newsletters in English, French, and Spanish;

(b) General information in all United Nations languages (pamphlets, posters, etc.);

(c) Technical publications internally under co-publishing contracts;

(e) Audio-visual materials (radio programmes, video programmes, video spots), exhibits, photo-competition and photo-agency and maintenance of video/film library;

(d) Information material for World Environment Day (WED) and other international events;

(f) Media support programmes for greater coverage of environmental issues by the media, through press releases, briefings, fact-files and radio scripts.

Proposed allocation under subprogramme 11	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$2,800,000 (C1) $500,000 (C2) $900,000 (S)	All subprogrammes	UNEP publishers; co-publishers; cooperating and agencies

11.2.3 **Description:** Regional information activities implemented through UNEP regional offices.

Output: Regional newsletters, press releases, features, broadcast materials, audio-visual materials, information campaigns in two countries per region per year, and full support to headquarters information activities, particularly the UNEP outreach programme.

Proposed allocation under subprogramme 11	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,600,000 (C1) $400,000 (C2) $600,000 (S)	Support and cooperation Other subprogrammes	In kind	United Nations; regional economic commissions; Governments; NGOs; IGOs; outreach constituencies

11.2.4. **Description:** Information support and development of outreach programmes with:

(a) NGOs, for information on major environmental problems and UNEP's priorities, and inputs to NGO activities;

(b) Other outreach programme constituencies: parliamentarians, religious groups, youth, women, national environmental committees, industry, services organizations.

Outputs: Newsletters, handbooks, training manuals, source materials, articles, posters, radio programmes.

Proposed allocation under subprogramme 11	Interlinkages with, and inputs from, other subprogrammes/programme elements	Cooperating agencies/supporting organizations
$1,400,000 (C1) $300,000 (C2) $1,000,000 (S)	All subprogrammes In kind Capacity-building (11.1.1)	NGOs; outreach constituencies, such as youth, women, services organizations; WAGGS, WOSM, Red Cross, ELCI, etc.

11.2.5. Rephased activities from the biennium 1992-1993.

Proposed allocation under subprogramme 11	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$500,000 (C1)	-	-

2. Programme element 11.2: overview of proposed resource allocation under subprogramme 11 (United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
11.2.1	400,000	100,000	300,000	800,000
11.2.2	2,800,000	500,000	900,000	4,200,000
11.2.3	1,600,000	400,000	600,000	2,600,000
11.2.4	1,400,000	300,000	1,000,000	2,700,000
11.2.5	500,000	0	0	500,000
Total	6,700,000	1,300,000	2,800,000	10,800,000

C. Total proposed allocation of resources under subprogramme 11 (United States dollars)

Programme element	Core 1	Core 2	Supplementary	Total
11.1	8,900,000	2,300,000	2,000,000	13,200,000
11.2	6,700,000	1,300,000	2,800,000	10,800,000
Total	15,600,000	3,600,000	4,800,000	24,000,000

III. SYSTEM-WIDE PROGRAMME

A. System-wide strategy

The system-wide strategy is set out in the system-wide medium-term environment programme 1990-1995, paragraphs 393-395, 402-404.

B. Activities of the United Nations system and other organizations

UNCED — Produced Agenda 21, a system-wide blueprint for environment and development addressed primarily to Governments, the United Nations system and others for the future.

UNESCO — Implementation of the UNESCO/UNEP International Environmental Education Programme (IEEP) with promotion of general environmental education at the national, regional and global levels through seminars, training of educational decision makers, technical assistance, studies, publications, preparation of teaching material, teacher training curricula. It is directed at general public, schools, teachers, universities, and also at specific occupational or social groups (engineers, lawyers, economists, tourism specialists, decision makers, etc.). This thrust is in the context of achieving environmental literacy for all, as recommended by the 1990 Jomtien Conference on Education for All.

Organization or support of postgraduate courses on environmental management of natural resources at the international and regional levels, including short training courses on water, soil and energy resources.

	Development of linkages between environmental education and public information on the environment, including the findings of environmental research carried out by international scientific programmes, through publications, newsletters, exhibits, audio-visual and television productions, use of biosphere reserves for public information on environmental understanding and sustainable development, promotion of the World Heritage Convention, of the concept of world heritage and biological diversity.
WHO	Promotion of the introduction of environmental and health protection instructions in academic institutions, preparation of teaching materials and inventories of such materials, organization of series of workshops, seminars and training courses for various discipline concerned with environmental issues.
UNU	Incorporation of environmental dimension into university-level education.
ILO	Implementation of environmental training components within various activities including: worker's education, training for employers' organizations, vocational and management training, rural and artisan training, training related to extension of rural development and employment activities, and training related to improvements in the working environment. A new programme will aim to build and strengthen a body of environmental inspectorate within developing countries.
UNFPA	Strengthens national capacity for dealing with population dynamics in planning for sustainable development, including elaboration of population policies and integration of population concerns in environmental education.
WMO	Implementation of an education and training programme aimed at assisting meteorological and hydrological services to meet their training needs and to develop their human resources, includes the organization of courses, seminars and workshops, the preparation of publications and training curricula, the award of short- and long-term fellowships, and the support of regional training centres. Subjects very often deal with environmental issues such as air and water pollution, atmospheric hazards (droughts, tropical cyclones, severe storms, etc.) and climate impacts.
	Implementation of training in atmospheric composition and climate-change monitoring. Increase of public awareness through preparation and distribution of mass-media materials on urgent atmospheric environment issues (including the ozone layer) and climate change.
United Nations	Organization of several environment-related international seminars, symposia and conferences to facilitate the exchange of experiences and environmental awareness of technical and managerial personnel in developing countries, in the areas of development planning and administration, energy development and utilization, water quality, planning and management, environmental guidelines for the mining sector, environment/population interactions and environmental statistics. External, internal and on-the-job training in appropriate environmental guidelines, policies and management in ongoing operational projects and programmes in the above fields. within JUNIC, co-productions with Department of Public Information for world photo-competition (United Nations/UNEP/Canon), exhibits, special events, films, radio programmes, and international years and events; continued support to Development Forum; close working relations with UNIC and UNDP officials in the regions for UNEP special events programme; development and support of NGO programmes with NGOs.
UNDP	Collaboration with UNESCO and UNEP in the field of environmental education. Major programme ("Capacity 21") aimed at capacity-building in the developing countries in fulfilment of the recommendations of Agenda 21 (in collaboration with UNEP and others).
Specialized agencies	Special support in terms of staff and material for technical meetings and conferences dealing with environment matters (UNIDO, WMO, WHO, UNESCO, World Bank and others as required).
ECA	Provides assistance in identifying potential trainees at national level for human resources development in environmental management and assistance for re-entry and follow-up of trainees.
	Promotes capacity-building in the field of environmental law.
	Participates in regional information activities as well as participating in those of UNEP.
UNIDO	UNIDO support to national capacity-building concentrates on three aspects of sustainable industrial development: (i) enhancing capacities to incorporate environmental considerations into industrialization policy and strategies; (ii) enhancing capacities to disseminate and analyse technological information; and (iii) improving capacities to analyse and exercise choices among technological options. UNIDO has together with UNEP, the Centre for International Projects and Tampere University, Finland conducted the training course for environmental management for industrial managers and engineers from the Asia region which will be conducted in 1993 for Africa.

	UNIDO is working at three interrelated levels to provide information to developing countries: (i) collection and dissemination of industry-related environmental information to developing countries through a referral/clearing house system; (ii) data and information collection, analysis and modelling as a basis for policy formulation and decision-making; and (iii) inclusion through the UNIDO feasibility study programme of environmental considerations in the calculation of the costs and benefits of potential investments. Other activities include a public information programme advocating sustainable industrial development through print and audio-visual media, and through promotion of closer and continued linkages between UNIDO and developing country counterparts, donors, the media and the public at large.
UNHCR	Promotes environmental-awareness programmes within the context of refugee assistance programmes.

SUBPROGRAMME 12. SUPPORT TO AND COOPERATION FOR ENVIRONMENTAL ACTION (INCLUDING GLOBAL AND REGIONAL COOPERATION)

I. PROGRAMME STRATEGY OF UNEP

A. Strategy

1. Most developing countries lack the resources (human and financial) to enable them to handle in a coordinated and effective manner their most pressing environmental problems. Consequently, the strategy in subprogramme 12 is to promote internationally harmonized and concerted actions for environmentally sound and sustainable development through, inter alia: (i) enhancing technical cooperation provided by UNEP regional and liaison offices as well as headquarters; (ii) fostering international environmental activities in cooperation with regional agencies and bodies; and, (iii) ensuring UNEP's coordinating and catalysing actions within the United Nations system as it not only addresses the relevant chapters and programmes of Agenda 21 but also operationalizes its assistance to countries and in different regional activities.

B. Legislative authority

2. The legislative authority of the subprogramme derives from the revised United Nations medium-term plan 1992-1997 (A/47/6/Rev.1), programme 16 (Environment), Governing Council decisions 14/21, 15/1, section III, 15/17, 15/19, 15/20, 16/14, 16/15, 16/18 and 16/22 C; and relevant chapters of Agenda 21.

C. Agenda 21 priorities for UNEP

3. In its forty chapters, Agenda 21 calls for regional and subregional cooperative activities. UNEP's catalysing and coordinating roles at the global and regional level are recognized, and chapter 38 recommended specifically that UNEP's regional offices should be strengthened without weakening its headquarters in Nairobi. While practically all subprogrammes have relevant activities of regional and national character in which UNDP and, in particular, the regional commissions will be key actors, this subprogramme underlines the particularly close ties that UNEP will maintain with those organizations in a number of activities under the subprogramme.

II. PROGRAMME ELEMENTS

Programme element 12.1. Support to and cooperation for environmental action

1. Activities

12.1.1

(a) Description: Technical cooperation and training by UNEP regional and liaison offices through regional advisory services.

Output: Provision of expert advice and support to international meetings.

Proposed allocation under subprogramme 12	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$3,700,000 (C1) $1,800,000 ($)	All subprogrammes	In kind	Governments; UNIDO; regional commissions

12.1.1

(b) Description: Technical cooperation and training by UNEP headquarters through interregional advisory services.

Output: Provision of expert advice and support to international meetings.

Proposed allocation under under subprogramme 12	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$200,000 (C1) $500,000 (C2)	All subprogrammes	In kind	Governments; UNIDO; regional commissions

12.1.2

(a) Description: Coordination of technical cooperation among developing countries through the support to the formulation of African common positions and through the implementation of the AMCEN Cairo Programme for Cooperation.

Output: African common position and relevant output from AMCEN.

Proposed allocation under subprogramme 12	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,400,000 (C1)	All subprogrammes	In kind	Governments; ECA; relevant agencies

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12.1.2

(b) **Description:** Coordination of technical cooperation among developing countries through support to the Latin American and the Caribbean regional environment programme.

Output: Implementation of Latin American and the Caribbean regional environment programme

Proposed allocation under subprogramme 12	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,400,000 (C1)	All subprogrammes	In kind	Governments; ECLAC; relevant agencies

12.1.2

(c) **Description:** Coordination of technical cooperation among developing countries through the support to the subregional environmental programmes of SACEP, ASEAN, and SPREP.

Output: Implementation of subregional environmental programmes of SACEP, ASEAN, and SPREP.

Proposed allocation under subprogramme 12	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,400,000 (C1)	Oceans	In kind	Governments; ESCAP; relevant agencies

12.1.2

(d) **Description:** Coordination of technical cooperation among developing countries through support to the Plan of Action of the Arab Ministerial Conference on Environment and Development.

Output: Implementation of the Plan of Action of the Arab Ministerial Conference on Environment and Development.

Proposed allocation under subprogramme 12	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$750,000 (C1)	All subprogrammes	In kind	Governments; ESCWA; ECA; relevant agencies

12.1.2

(e) **Description:** Coordination of technical cooperation among developing countries through the support to the environmental programme in Europe (follow-up to Lucerne Conference).

Output: Implementation of the environmental programme in Europe.

Proposed allocation under subprogramme 12	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$500,000 (C1)	All subprogrammes	In kind	Governments; ECE; relevant agencies

12.1.3 **Description:** Environmental programmes of United Nations regional economic commissions.

Output: Support to environmental programmes of United Nations regional economic commissions.

Proposed allocation under subprogramme 12	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,100,000 (C1) $500,000 (C2) $1,000,000 (S)	All subprogrammes	In kind	ECA; ECLAC; ESCAP; ESCWA

12.1.4 **Description:** Cooperation with regional development banks.

Output: Joint activities with regional development banks.

Proposed allocation under subprogramme 12	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$300,000 (C1) $200,000 (C2) $250,000 (S)	All subprogrammes	In kind	Regional development banks; ECA; ECLAC; ESCAP; ESCWA

12.1.5 **Description:** Cooperation with UNDP at country level and technical cooperation with developing countries and countries in transition on capacity building in meeting their environmental needs.

Output: Joint activities with UNDP for capacity-building.

Proposed allocation under subprogramme 12	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$800,000 (C1) $1,200,000 (C2) $1,250,000 (S)	All subprogrammes	In kind	UNDP; UNIDO; regional economic commissions; Governments; relevant agencies

12.1.6 **Description:** Institutional and programme support to UNSO for assistance, on behalf of UNEP, to the countries of Sudano-Sahelian region in implementing the Plan of Action to Combat Desertification.

Output: Support to UNSO.

Proposed allocation under subprogramme 12	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
In kind	Desertification	UNDP; UNSO; donors; UNIDO

12.1.7 **Description:** Coordination of environmental activities within the United Nations system.

Output: Coordination of environmental activities within the United Nations system.

Proposed allocation under subprogramme 12	Interlinkages with, and inputs from, other subprogrammes		Cooperating agencies/supporting organizations
$1,000,000 (C1) $750,000 (C2) $500,000 (S)	All subprogrammes	In kind	Relevant agencies

12.8 Rephased activities from 1992-1993.

Proposed allocation under subprogramme 12	Interlinkages with, and inputs from, other subprogrammes	Cooperating agencies/supporting organizations
$500,000 (C1)	-	-

2. Programme element 12.1: overview of proposed resource allocation under subprogramme 12 (United States dollars)

Activity	Core 1	Core 2	Supplementary	Total
12.1.1 (a)	3,700,000	0	1,800,000	5,500,000
12.1.1 (b)	200,000	500,000	0	700,000
12.1.2 (a)	1,400,000	0	0	1,400,000
12.1.2 (b)	1,400,000	0	0	1,400,000
12.1.2 (c)	1,400,000	0	0	1,400,000
12.1.2 (d)	750,000	0	0	750,000
12.1.2 (e)	500,000	0	0	500,000
12.1.3	1,100,000	500,000	1,000,000	2,600,000
12.1.4	300,000	200,000	250,000	750,000
12.1.5	800,000	1,200,000	1,250,000	3,250,000
12.1.6	0	0	0	0
12.1.7	1,000,000	750,000	500,000	2,250,000
12.1.8	500,000	0	0	0
Total	13,050,000	3,150,000	4,800,000	21,000,000

Annex

ABBREVIATIONS

ACI	African Cultural Institute
ACMAD	African Centre of Meteorological Applications for Development
ACSAD	Arab Centre for the Study of Arid Zones and Drylands
ADALCO	African Deserts and Arid Lands Committee
AfDB	African Development Bank
AsDB	Asian Development Bank
AGRHYMET	Regional Training Centre for Agrometeorology and Operational Hydrology and Their Application
AIT	Asian Institute of Training
AMCEN	African Ministerial Conference on the Environment
APELL	Awareness and Preparedness for Emergencies at Local Level
ASEAMS	Association of South-East Asian Marine Scientists
ASEAN	Association of South East Asian Nations
ASCOPE	ASEAN Council on Petroleum
ASPEI	Association of South Pacific Environmental Institutions
BAPMoN	Background Air Pollution Monitoring Network
CABI	Commonwealth Agricultural Bureau International
CARICOM	Caribbean Community Secretariat
CCA	Caribbean Conservation Association
CEFIGRE	International Training Centre for Water Resources Management
CGIAR	Consultative Group on International Agricultural Research
CIDIE	Committee of International Development Institutions on the Environment
CIESIN	Consortium for International Earth Science Information Network
CILSS	Permanent Inter-State Committee for Drought Control in the Sahel
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMS	Convention on Migratory Species of Wild Animals
COBSEA	Coordinating Body on the Seas of East Asia
COSPAR	Committee on Space Research (ICSU)
CPPS	Permanent Commission for the South Pacific
DESCON	Consultative Group for Desertification Control
DPI	United Nations Department of Public Information
EC	European Communities
ECA	Economic Commission for Africa
ECE	Economic Commission for Europe
ECG	Ecosystem Conservation Group
ECLAC	Economic Commission for Latin America and the Caribbean
EEC	European Economic Community
EIA	environmental impact assessment
EIB	European Investment Bank
ELCI	Environment Liaison Centre International
EMEP	European Monitoring and Evaluation Programme
ENSO	El Niño Southern Oscillation
ESCAP	Economic and Social Commission for Asia and the Pacific
ESCWA	Economic and Social Commission for Western Asia
ESRI	Environment Systems Research Institute
FAO	Food and Agriculture Organization of the United Nations
FCCC	United Nations Framework Convention on Climate Change
GATT	General Agreement on Tariffs and Trade
GCOS	Global Climate Observing System
GCTE	Global Change and Terrestrial Ecosystems Project
GEEP	Group of Experts on the Effects of Pollutants
GEF	Global Environment Facility
GEMS	Global Environmental Monitoring System
GERMON	Global Network on Environmental Radiation Monitoring and Emergency Response
GESAMP	Joint Group of Experts on the Scientific Aspects of Marine Pollution
GIPME	Global Investigation of Pollution in the Marine Environment Programme
GIS	geographic information system
GLASOD	Global Assessment of Soil Degradation
GRID	Global Resource Information Database
GTOS	Global Terrestrial Observing System
GTS	Global Telecommunications System
HYDROMET	Committee for Hydrometeorology and Environmental Monitoring of the Russian Federation
IADB	Inter-American Development Bank
IAEA	International Atomic Energy Agency
IAHS	International Association of Hydrological Sciences
IAEMS	International Association of Environmental Mutagen Societies
IAMAP	International Association of Meteorology and Atmospheric Physics
IARC	International Agency for Research on Cancer
IATTC	Inter-American Tropical Tuna Commission
IAWGD	Inter-Agency Working Group on Desertification
IBPGR	International Board for Plant Genetic Resources
IBRD	International Bank for Reconstruction and Development
IBSRAM	International Board for Soil Research and Management
ICAO	International Civil Aviation Organization

ICARDA	International Centre for Agricultural Research in Dry Areas
ICGEB	International Centre for Genetic Engineering and Biotechnology
ICIMOD	International Center for Integrated Mountain Development
ICIPE	International Centre of Insect Physiology and Ecology
ICRAF	International Centre for Research in Agroforestry
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
ICPEMC	International Commission for Protection Against Environmental Mutagens and Carcinogens
ICSU	International Council of Scientific Unions
IDB	Islamic Development Bank
IDNDR	International Decade for Natural Disaster Reduction
IEA	International Energy Agency
IEEP	International Environmental Education Programme
IE/PAC	Industry and Environment Programme Activity Centre
IETC	International Environmental Technology Centre
IFAD	International Fund for Agriculture Development
IFAW	International Fund for Animal Welfare
IGBP	International Geosphere-Biosphere Programme
IHP	International Hydrological Programme
IIASA	International Institute for Applied Systems Analysis
IIED	International Institute for Environment and Development
ILCA	International Livestock Centre for Africa
ILEC	International Lake Environment Committee
ILO	International Labour Organisation
IMF	International Monetary Fund
IMO	International Maritime Organization
INC	intergovernmental negotiating committee
INDIS	Industrial Information System (UNIDO)
INFOCLIMA	World Climate Data Information Referral Service (WMO)
INFOTERRA	International Environmental Information System
INPE	Instuto Nacional de Pesquizas Espacias (Brazil)
INRES	Information Referral System (UNDP)
INIS	International Nuclear Information System
INTIB	Industrial and Technological Information Bank (UNIDO)
IOC	Intergovernmental Oceanographic Commission (UNESCO)
IOMAC	Indian Ocean Maritime Affairs Cooperation Programme
IOW	International Office for Water
IPCC	Intergovernmental Panel on Climate Change
IPCS	International Programme on Chemical Safety
IPS	Inter-Press Service
IRPTC	International Register of Potentially Toxic Chemicals
IRRO	international information resource on the release of organisms into the environment
ISRIC	International Soil Reference and Information Centre
ISSS	International Society of Soil Science
ITC	International Trade Centre
ITTO	International Tropical Timber Organization
IUBS	International Union of Biological Sciences
IUCN	World Conservation Union
IWC	International Whaling Commission
IWRA	International Water Resources Association
JUNIC	Joint United Nations Information Committee
MAB	Man and the Biosphere Programme (UNESCO)
MARC	Monitoring and Assessment Research Centre
MIRCENs	Microbial Resources Centres
MSDN	International Microbial Strain Data Network
NASA	National Aeronautics and Space Administration, United States of America
NGLS	Non-governmental Liaison Service
NGOs	Non-governmental organizations
NCAR	National Center for Atmospheric Research (USA)
NOAA	National Oceanic and Atmospheric Administration (United States)
OECD	Organization for Economic Co-operation and Development
PACD	Plan of Action to Combat Desertification
PADIS	Pan African Development Information System (United Nations, ECA)
PAHO	Pan-American Health Organization
PEEM	Panel of Experts on Environmental Management for Vector Control
PERSGA	Red Sea and Gulf of Aden Environment Programme
PIC	prior informed consent
RESSMRS	Regional Centre for Services in Surveying, Mapping and Remote Sensing
ROPME	Regional Organization for the Protection of the Marine Environment
SACEP	South Asia Co-operative Environment Programme
SADCC	Southern African Development Co-ordination Conference
SAFGRAD	Semi-Arid Food Grain Research and Development
SBC	Secretariat of the Basel Convention for the Control of Transboundary Movements of Hazardous Wastes and their Disposal
SCOPE	Scientific Committee on Problems of the Environment
SEI	Stockholm Environment Institute
SOE	state of the environment
SOFERNET	Soils and Fertilizers Network (AMCEN)

SPC	South Pacific Commission
SPEC	South Pacific Bureau for Economic Co-operation
SPOCC	South Pacific Organ' ations Coordinating Committee
SPREP	South Pacific Region . Environment Programme
TFAP	Tropical Forestry Action Plan
TOGA	Tropical Ocean General Atmosphere
TVE	Television Trust for the Environment
UCC-RISO	RISO/UNEP Collaborating Centre on Energy and the Environment
UMA	Arab Maghreb Union
UNCED	United Nations Conference on Environment and Development
UNCUEA	United Nations Centre for Urgent Environmental Assistance
UNCHS	United Nations Centre for Human Settlements (Habitat)
UNCSTD	United Nations Centre for Science and Technology for Development
UNCTAD	United Nations Conference on Trade and Development
UNDP	United Nations Development Programme
UNDESD	United Nations Department of Economic and Social Development
UNDOALOS	United Nations Department of Ocean Affairs and Law of the Sea
UNDRO	Office of the United Nations Disaster Relief Co-ordinator
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNIC	United Nations Information Centre
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Institute for Training and Research
UNPAAERD	United Nations Programme of Action for Africa Economic Recovery and Development
UNSO	United Nations Sudano-Sahelian Office
UNU	United Nations University
USDA-FS	United States Department of Agriculture - Forestry Service
USEPA	United States Environmental Protection Agency
USGS	United States Geological Service
USP	University of the South Pacific
WAGGS	World Association of Girl Guides and Girl Scouts
WCIRP	World Climate Impact and Response Strategies Programme
WCMC	World Conservation Monitoring Centre
WCRP	World Climate Research Programme
WDC	World Data Centre for Micro-organisms
WEC	World Energy Conference
WESTPAC	Subcommission for the Western Pacific Region (IOC)
WFC	World Food Council
WHO	World Health Organization
WIDECAST	Wider Caribbean Sea Turtle Recovery Team
WIDER	World Institute for Development Economics Research
WMO	World Meteorological Organization
WOCE	World Ocean Circulation Experiment
WOSM	World Organization of the Scout Movement
WRI	World Resources Institute
WTO	World Tourism Organization
WWF	Worldwide Fund for Nature